Full wwPDB X-ray Structure Validation Report (i)

Mar 9, 2026 – 09:38 AM UTC

PDB ID	:	6UCQ / pdb_00006ucq
Title	:	Crystal structure of the Thermus thermophilus 70S ribosome recycling complex
Authors	:	Zhou, D.; Tanzawa, T.; Gagnon, M.G.; Lin, J.
Deposited on	:	2019-09-17
Resolution	:	3.50 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:

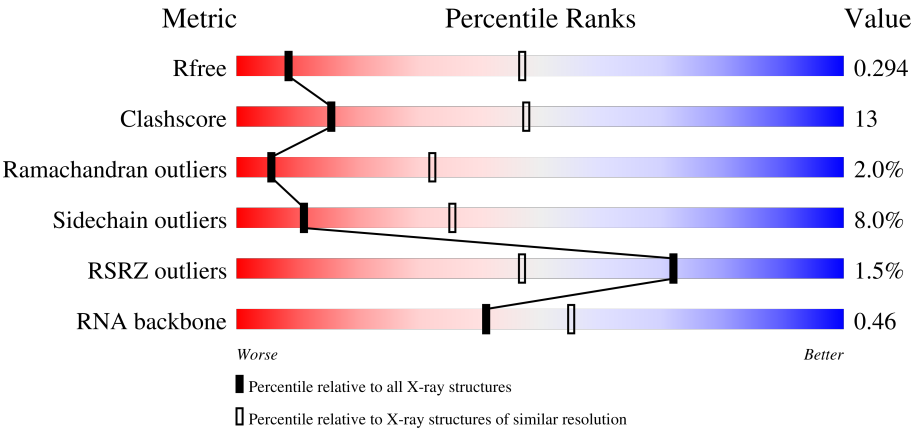
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.50 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	1085 (3.54-3.46)
Clashscore	190562	1140 (3.54-3.46)
Ramachandran outliers	187476	1113 (3.54-3.46)
Sidechain outliers	187428	1114 (3.54-3.46)
RSRZ outliers	180081	1084 (3.54-3.46)
RNA backbone	3983	1010 (3.98-3.02)

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	45% 45% 9% ·
1	2A	2915	47% 41% 8% ·
2	1B	121	55% 35% 9% ·
2	2B	121	47% 41% 11% ·

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Mol	Chain	Length	Quality of chain
3	1D	276	59% 34% 7%
3	2D	276	3% 54% 42%
4	1E	206	% 67% 29%
4	2E	206	% 60% 36%
5	1F	210	% 51% 39% 6%
5	2F	210	58% 35%
6	1G	182	% 57% 39%
6	2G	182	% 65% 32%
7	1H	180	56% 37%
7	2H	180	% 64% 31%
8	1N	140	% 58% 39%
8	2N	140	% 66% 30%
9	1O	122	53% 44%
9	2O	122	% 64% 35%
10	1P	150	% 65% 33%
10	2P	150	2% 61% 35%
11	1Q	141	57% 41%
11	2Q	141	% 60% 38%
12	1R	118	% 48% 42% 9%
12	2R	118	3% 58% 37%
13	1S	112	64% 32%
13	2S	112	4% 61% 34%
14	1T	146	% 51% 35% 10%
14	2T	146	% 55% 34% 10%
15	1U	118	59% 38%

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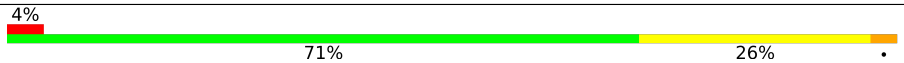
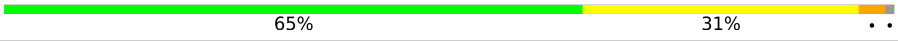
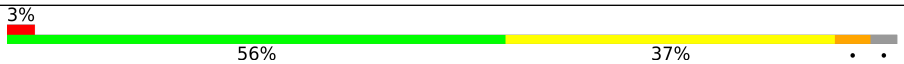
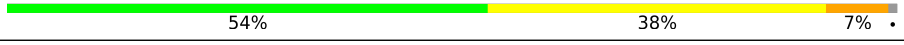
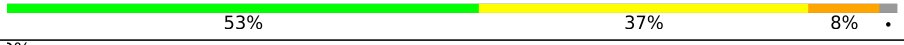
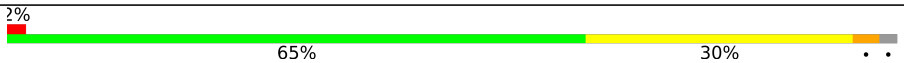
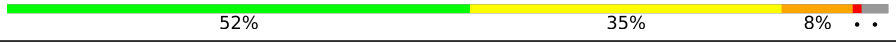
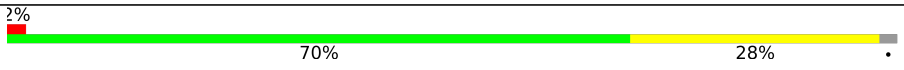
Mol	Chain	Length	Quality of chain
15	2U	118	
16	1V	101	
16	2V	101	
17	1W	113	
17	2W	113	
18	1X	96	
18	2X	96	
19	1Y	110	
19	2Y	110	
20	1Z	206	
20	2Z	206	
21	10	85	
21	20	85	
22	11	98	
22	21	98	
23	12	72	
23	22	72	
24	13	60	
24	23	60	
25	14	71	
25	24	71	
26	15	60	
26	25	60	
27	16	54	
27	26	54	

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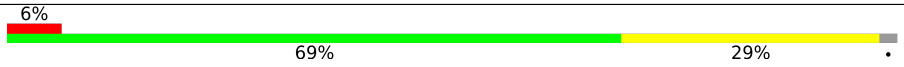
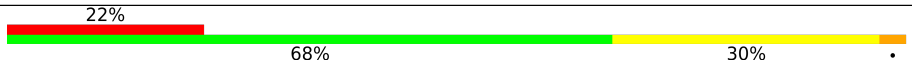
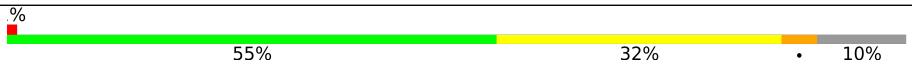
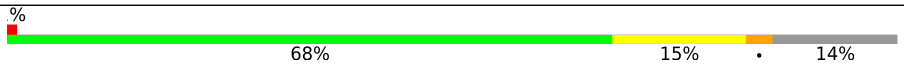
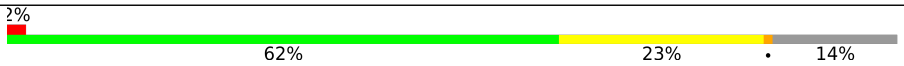
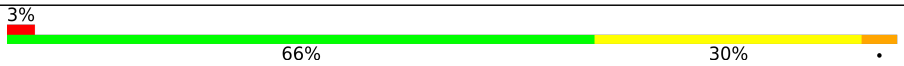
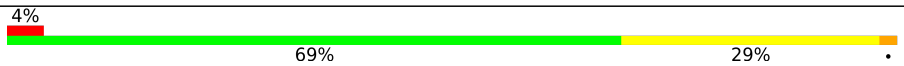
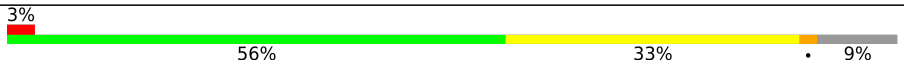
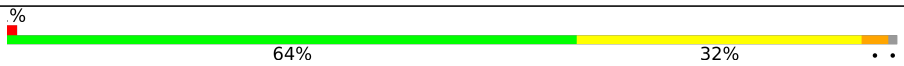
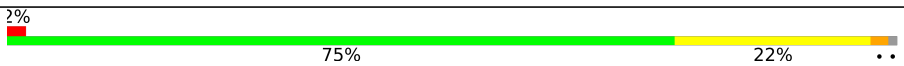
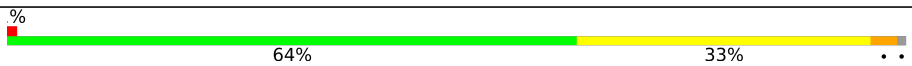
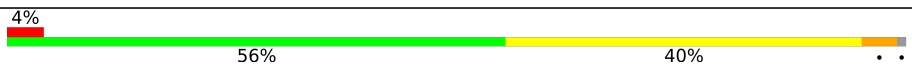
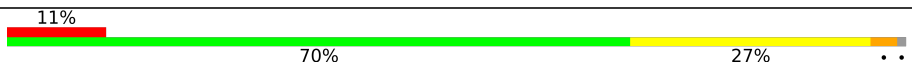
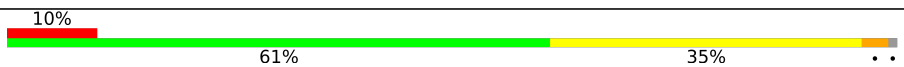
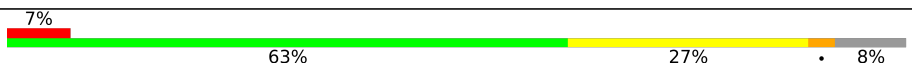
Mol	Chain	Length	Quality of chain
28	17	49	
28	27	49	
29	18	65	
29	28	65	
30	19	37	
30	29	37	
31	1a	1521	
31	2a	1521	
32	1b	256	
32	2b	256	
33	1c	239	
33	2c	239	
34	1d	209	
34	2d	209	
35	1e	162	
35	2e	162	
36	1f	101	
36	2f	101	
37	1g	156	
37	2g	156	
38	1h	138	
38	2h	138	
39	1i	128	
39	2i	128	
40	1j	105	

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Mol	Chain	Length	Quality of chain
40	2j	105	5% 56% 34% 9%
41	1k	129	2% 61% 27% 12%
41	2k	129	2% 64% 23% 12%
42	1l	132	5% 55% 34% 8%
42	2l	132	3% 58% 32% 8%
43	1m	126	6% 61% 32% 6%
43	2m	126	2% 58% 35%
44	1n	61	5% 64% 34%
44	2n	61	3% 57% 39%
45	1o	89	64% 35%
45	2o	89	6% 64% 27% 8%
46	1p	88	% 57% 33% 7%
46	2p	88	2% 60% 30% 7%
47	1q	105	2% 54% 37% 6%
47	2q	105	7% 47% 45% 6%
48	1r	88	48% 27% 23%
48	2r	88	% 47% 31% 23%
49	1s	93	5% 45% 38% 6% 11%
49	2s	93	6% 44% 38% 8% 11%
50	1t	106	10% 61% 25% 5% 9%
50	2t	106	15% 61% 27% 9%
51	1u	27	19% 52% 30% 15%
51	2u	27	37% 63% 22% 15%
52	1v	758	% 51% 39% 6%
52	2v	758	% 51% 38% 7%

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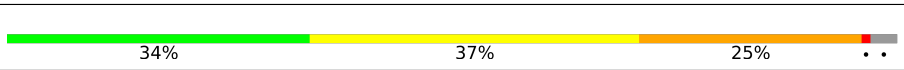
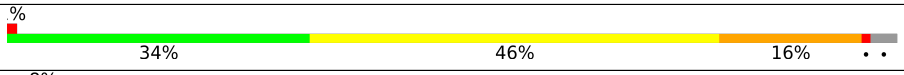
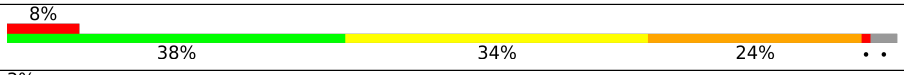
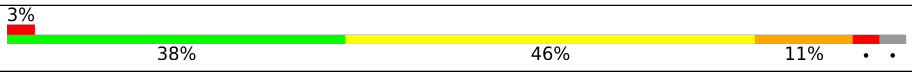
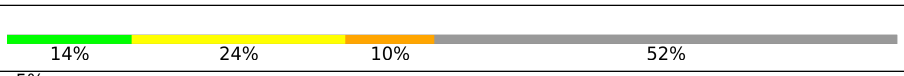
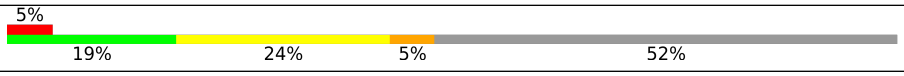
Mol	Chain	Length	Quality of chain
53	1w	185	
53	2w	185	
54	1x	76	
54	1y	76	
54	2x	76	
54	2y	76	
55	1z	21	
55	2z	21	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	1A	4036	-	-	-	X
56	MG	1A	4180	-	-	-	X
56	MG	1A	4211	-	-	-	X
56	MG	1A	4348	-	-	-	X
56	MG	1A	4394	-	-	-	X
56	MG	1A	4682	-	-	-	X
56	MG	1B	216	-	-	-	X
56	MG	1a	1625	-	-	-	X
56	MG	1a	1634	-	-	-	X
56	MG	1a	1644	-	-	-	X
56	MG	1a	1647	-	-	-	X
56	MG	1a	1649	-	-	-	X
56	MG	1a	1662	-	-	-	X
56	MG	1a	1686	-	-	-	X
56	MG	1a	1752	-	-	-	X
56	MG	1a	1757	-	-	-	X
56	MG	1a	1792	-	-	-	X
56	MG	1a	1831	-	-	-	X
56	MG	1a	1863	-	-	-	X
56	MG	1v	701	-	-	-	X
56	MG	1y	102	-	-	-	X
56	MG	28	101	-	-	-	X
56	MG	2A	3071	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	2A	3095	-	-	-	X
56	MG	2A	3096	-	-	-	X
56	MG	2A	3097	-	-	-	X
56	MG	2A	3162	-	-	-	X
56	MG	2A	3185	-	-	-	X
56	MG	2A	3198	-	-	-	X
56	MG	2A	3210	-	-	-	X
56	MG	2A	3232	-	-	-	X
56	MG	2A	3235	-	-	-	X
56	MG	2A	3236	-	-	-	X
56	MG	2A	3279	-	-	-	X
56	MG	2A	3287	-	-	-	X
56	MG	2A	3327	-	-	-	X
56	MG	2A	3329	-	-	-	X
56	MG	2A	3346	-	-	-	X
56	MG	2A	3355	-	-	-	X
56	MG	2A	3363	-	-	-	X
56	MG	2A	3365	-	-	-	X
56	MG	2A	3366	-	-	-	X
56	MG	2A	3424	-	-	-	X
56	MG	2A	3610	-	-	-	X
56	MG	2B	221	-	-	-	X
56	MG	2B	227	-	-	-	X
56	MG	2Q	202	-	-	-	X
56	MG	2a	1607	-	-	-	X
56	MG	2a	1608	-	-	-	X
56	MG	2a	1609	-	-	-	X
56	MG	2a	1615	-	-	-	X
56	MG	2a	1650	-	-	-	X
56	MG	2a	1651	-	-	-	X
56	MG	2a	1663	-	-	-	X
56	MG	2a	1664	-	-	-	X
56	MG	2a	1674	-	-	-	X
56	MG	2a	1734	-	-	-	X
56	MG	2a	1746	-	-	-	X
56	MG	2g	202	-	-	-	X
56	MG	2l	201	-	-	-	X
56	MG	2u	103	-	-	-	X
58	SF4	1d	304	-	-	X	-

2 Entry composition (i)

There are 60 unique types of molecules in this entry. The entry contains 305259 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1A	2871	Total	C	N	O	P	0	0	0
			61852	27531	11572	19878	2871			
1	2A	2800	Total	C	N	O	P	0	0	0
			60322	26848	11284	19390	2800			

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1451	930	261	256	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1453	930	263	256	4			

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

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

- Molecule 8 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			
8	2N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 9 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	1O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
9	2O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 10 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	2P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 11 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
11	2Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 12 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	1R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
12	2R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 13 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
13	1S	110	Total	C	N	O	0	0	0
			873	550	174	149			
13	2S	110	Total	C	N	O	0	0	0
			870	549	173	148			

- Molecule 14 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	1T	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
14	2T	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 15 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	1U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
15	2U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 16 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	1V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			
16	2V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 17 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			
17	2W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 18 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	1X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
18	2X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 19 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	1Y	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			
19	2Y	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			

- Molecule 20 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	1Z	204	Total	C	N	O	S	0	0	0
			1582	1007	278	295	2			
20	2Z	204	Total	C	N	O	S	0	0	0
			1582	1007	278	295	2			

- Molecule 21 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	10	75	Total	C	N	O	S	0	0	0
			598	370	127	100	1			
21	20	75	Total	C	N	O	S	0	0	0
			598	370	127	100	1			

- Molecule 22 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	11	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			
22	21	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			

- Molecule 23 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	12	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
23	22	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

- Molecule 24 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
24	13	59	Total	C	N	O	0	0	0
			469	298	90	81			
24	23	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 25 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	14	69	Total	C	N	O	S	0	0	0
			552	349	99	99	5			
25	24	69	Total	C	N	O	S	0	0	0
			532	339	97	91	5			

- Molecule 26 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	15	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	25	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 27 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	16	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
27	26	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 28 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	17	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
28	27	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 29 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	18	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
29	28	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 30 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	19	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
30	29	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 31 is a RNA chain called 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	1a	1499	Total	C	N	O	P	0	0	0
			32224	14348	5970	10407	1499			
31	2a	1503	Total	C	N	O	P	0	0	0
			32327	14396	5990	10438	1503			

- Molecule 32 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1b	231	Total	C	N	O	S	0	0	0
			1846	1179	331	331	5			
32	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 33 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	1c	206	Total	C	N	O	S	0	0	0
			1548	973	301	273	1			
33	2c	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 34 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1d	208	Total	C	N	O	S	0	0	0
			1655	1038	326	284	7			
34	2d	208	Total	C	N	O	S	0	0	0
			1674	1050	333	284	7			

- Molecule 35 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1e	148	Total	C	N	O	S	0	0	0
			1129	714	213	198	4			
35	2e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 36 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1f	100	Total	C	N	O	S	0	0	0
			810	514	144	149	3			
36	2f	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 37 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1g	155	Total	C	N	O	S	0	0	0
			1231	766	243	216	6			
37	2g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			

- Molecule 38 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			
38	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 39 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	1i	127	Total	C	N	O	0	0	0
			983	623	193	167			
39	2i	127	Total	C	N	O	0	0	0
			978	619	190	169			

- Molecule 40 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	1j	97	Total	C	N	O	0	0	0
			709	440	138	131			
40	2j	96	Total	C	N	O	0	0	0
			714	445	138	131			

- Molecule 41 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	1k	114	Total	C	N	O	S	0	0	0
			829	516	155	155	3			
41	2k	114	Total	C	N	O	S	0	0	0
			833	519	156	155	3			

- Molecule 42 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	1l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	2l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

- Molecule 43 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	1m	118	Total	C	N	O	S	0	0	0
			919	566	190	161	2			
43	2m	122	Total	C	N	O	S	0	0	0
			950	586	197	165	2			

- Molecule 44 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
44	2n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 45 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
45	2o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 46 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
46	2p	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 47 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
47	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 48 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	1r	68	Total	C	N	O	0	0	0
			555	355	108	92			
48	2r	68	Total	C	N	O	0	0	0
			555	355	108	92			

- Molecule 49 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	1s	83	Total	C	N	O	S	0	0	0
			652	417	120	113	2			
49	2s	83	Total	C	N	O	S	0	0	0
			646	412	119	113	2			

- Molecule 50 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1t	96	Total	C	N	O	S	0	0	0
			728	446	156	124	2			
50	2t	96	Total	C	N	O	S	0	0	0
			727	446	155	124	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	1u	23	Total	C	N	O	0	0	0
			199	122	48	29			
51	2u	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 52 is a protein called 50S ribosomal protein L9,Elongation factor G.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	1v	728	Total	C	N	O	S	0	0	0
			5664	3599	974	1072	19			
52	2v	728	Total	C	N	O	S	0	0	0
			5664	3599	974	1072	19			

- Molecule 53 is a protein called Ribosome-recycling factor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1w	185	Total	C	N	O	S	0	0	0
			1478	924	270	282	2			
53	2w	185	Total	C	N	O	S	0	0	0
			1478	924	270	282	2			

- Molecule 54 is a RNA chain called P-site and E-site tRNAs.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
54	1x	74	Total	C	N	O	P	S	0	0	0
			1581	707	285	515	73	1			
54	1y	74	Total	C	N	O	P	S	0	0	0
			1581	707	285	515	73	1			
54	2x	74	Total	C	N	O	P	S	0	0	0
			1581	707	285	515	73	1			
54	2y	74	Total	C	N	O	P	S	0	0	0
			1581	707	285	515	73	1			

- Molecule 55 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	1z	10	Total	C	N	O	P	0	0	0
			212	96	39	67	10			
55	2z	10	Total	C	N	O	P	0	0	0
			212	96	39	67	10			

- Molecule 56 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1A	1063	Total	Mg	0	0
			1063	1063		
56	1B	26	Total	Mg	0	0
			26	26		
56	1D	8	Total	Mg	0	0
			8	8		
56	1E	8	Total	Mg	0	0
			8	8		
56	1F	1	Total	Mg	0	0
			1	1		
56	1H	2	Total	Mg	0	0
			2	2		
56	1N	1	Total	Mg	0	0
			1	1		
56	1O	5	Total	Mg	0	0
			5	5		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1P	5	Total Mg 5 5	0	0
56	1Q	3	Total Mg 3 3	0	0
56	1R	3	Total Mg 3 3	0	0
56	1S	2	Total Mg 2 2	0	0
56	1T	5	Total Mg 5 5	0	0
56	1U	3	Total Mg 3 3	0	0
56	1V	1	Total Mg 1 1	0	0
56	1W	2	Total Mg 2 2	0	0
56	1Y	1	Total Mg 1 1	0	0
56	1Z	5	Total Mg 5 5	0	0
56	10	4	Total Mg 4 4	0	0
56	11	1	Total Mg 1 1	0	0
56	12	1	Total Mg 1 1	0	0
56	13	1	Total Mg 1 1	0	0
56	15	2	Total Mg 2 2	0	0
56	16	1	Total Mg 1 1	0	0
56	17	3	Total Mg 3 3	0	0
56	18	3	Total Mg 3 3	0	0
56	19	1	Total Mg 1 1	0	0
56	1a	319	Total Mg 319 319	0	0
56	1b	9	Total Mg 9 9	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1d	4	Total Mg 4 4	0	0
56	1e	2	Total Mg 2 2	0	0
56	1g	2	Total Mg 2 2	0	0
56	1i	1	Total Mg 1 1	0	0
56	1l	1	Total Mg 1 1	0	0
56	1m	2	Total Mg 2 2	0	0
56	1n	2	Total Mg 2 2	0	0
56	1o	1	Total Mg 1 1	0	0
56	1p	1	Total Mg 1 1	0	0
56	1q	1	Total Mg 1 1	0	0
56	1s	3	Total Mg 3 3	0	0
56	1t	1	Total Mg 1 1	0	0
56	1u	1	Total Mg 1 1	0	0
56	1v	3	Total Mg 3 3	0	0
56	1x	2	Total Mg 2 2	0	0
56	1y	6	Total Mg 6 6	0	0
56	1z	1	Total Mg 1 1	0	0
56	2A	852	Total Mg 852 852	0	0
56	2B	32	Total Mg 32 32	0	0
56	2D	6	Total Mg 6 6	0	0
56	2E	5	Total Mg 5 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2F	4	Total Mg 4 4	0	0
56	2N	2	Total Mg 2 2	0	0
56	2O	1	Total Mg 1 1	0	0
56	2P	3	Total Mg 3 3	0	0
56	2Q	6	Total Mg 6 6	0	0
56	2S	1	Total Mg 1 1	0	0
56	2T	2	Total Mg 2 2	0	0
56	2V	1	Total Mg 1 1	0	0
56	2X	1	Total Mg 1 1	0	0
56	2Y	2	Total Mg 2 2	0	0
56	2Z	4	Total Mg 4 4	0	0
56	20	6	Total Mg 6 6	0	0
56	21	1	Total Mg 1 1	0	0
56	23	3	Total Mg 3 3	0	0
56	24	1	Total Mg 1 1	0	0
56	25	1	Total Mg 1 1	0	0
56	26	2	Total Mg 2 2	0	0
56	27	3	Total Mg 3 3	0	0
56	28	6	Total Mg 6 6	0	0
56	29	2	Total Mg 2 2	0	0
56	2a	321	Total Mg 321 321	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2b	3	Total Mg 3 3	0	0
56	2c	1	Total Mg 1 1	0	0
56	2d	3	Total Mg 3 3	0	0
56	2e	2	Total Mg 2 2	0	0
56	2f	4	Total Mg 4 4	0	0
56	2g	6	Total Mg 6 6	0	0
56	2h	5	Total Mg 5 5	0	0
56	2i	4	Total Mg 4 4	0	0
56	2k	2	Total Mg 2 2	0	0
56	2l	6	Total Mg 6 6	0	0
56	2m	3	Total Mg 3 3	0	0
56	2o	1	Total Mg 1 1	0	0
56	2p	3	Total Mg 3 3	0	0
56	2q	4	Total Mg 4 4	0	0
56	2r	2	Total Mg 2 2	0	0
56	2s	3	Total Mg 3 3	0	0
56	2t	1	Total Mg 1 1	0	0
56	2u	3	Total Mg 3 3	0	0
56	2v	3	Total Mg 3 3	0	0
56	2w	2	Total Mg 2 2	0	0
56	2x	8	Total Mg 8 8	0	0

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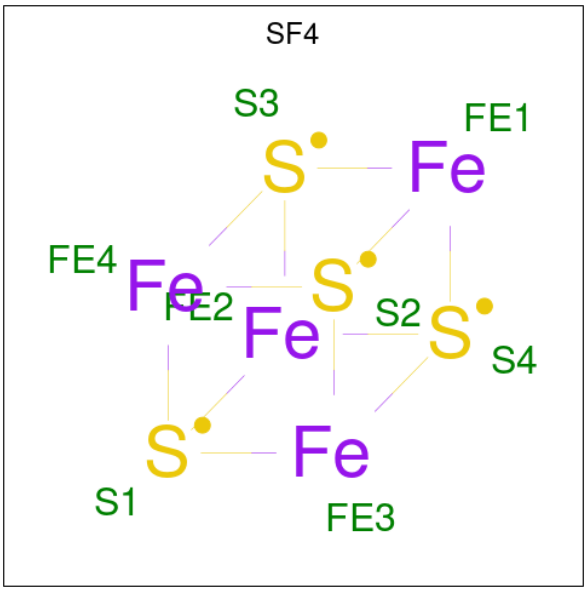
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2y	10	Total Mg 10 10	0	0
56	2z	3	Total Mg 3 3	0	0

- Molecule 57 is ZINC ION (CCD ID: ZN) (formula: Zn).

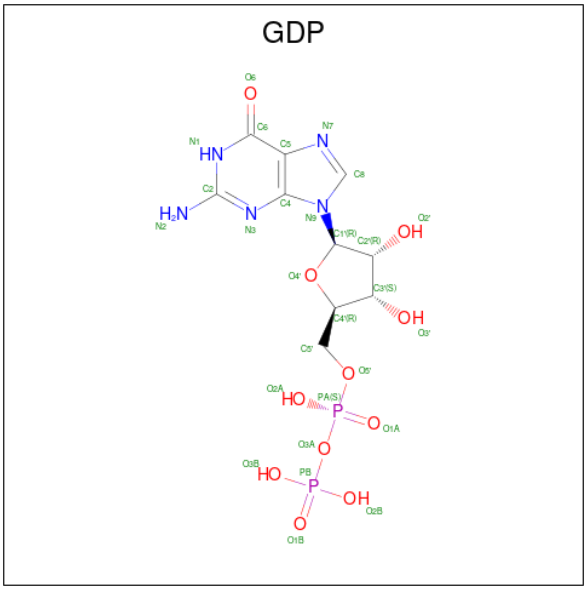
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1Y	1	Total Zn 1 1	0	0
57	14	1	Total Zn 1 1	0	0
57	15	1	Total Zn 1 1	0	0
57	16	1	Total Zn 1 1	0	0
57	19	1	Total Zn 1 1	0	0
57	1n	1	Total Zn 1 1	0	0
57	2Y	1	Total Zn 1 1	0	0
57	24	1	Total Zn 1 1	0	0
57	25	1	Total Zn 1 1	0	0
57	26	1	Total Zn 1 1	0	0
57	29	1	Total Zn 1 1	0	0
57	2n	1	Total Zn 1 1	0	0

- Molecule 58 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1d	1	Total Fe S 8 4 4	0	0
58	2d	1	Total Fe S 8 4 4	0	0

- Molecule 59 is GUANOSINE-5'-DIPHOSPHATE (CCD ID: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1v	1	Total C N O P 28 10 5 11 2	0	0
59	2v	1	Total C N O P 28 10 5 11 2	0	0

- Molecule 60 is POTASSIUM ION (CCD ID: K) (formula: K).

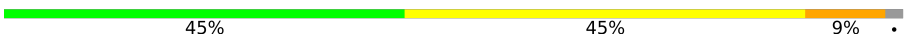
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	2A	1	Total K 1 1	0	0

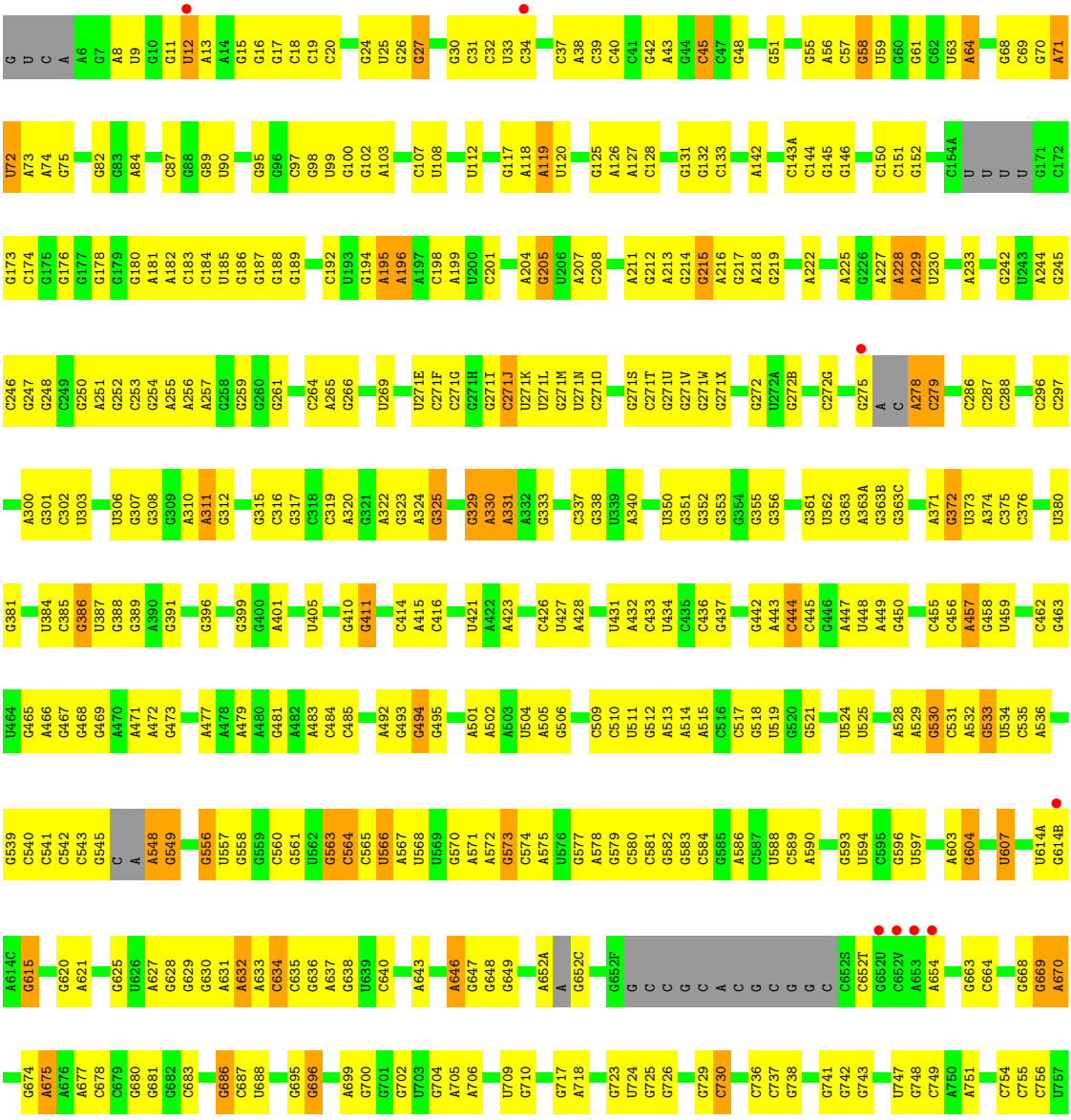
3 Residue-property plots (i)

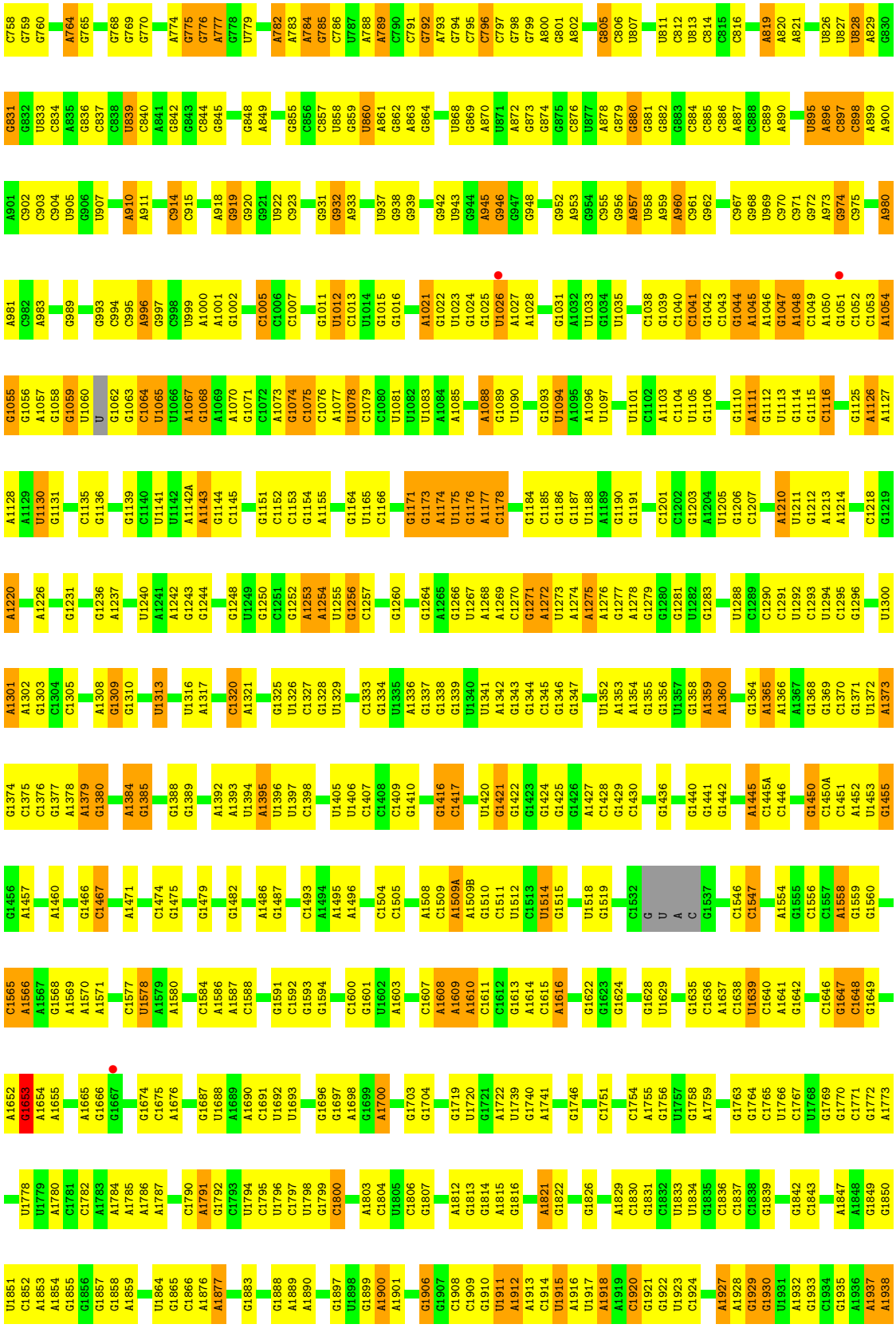
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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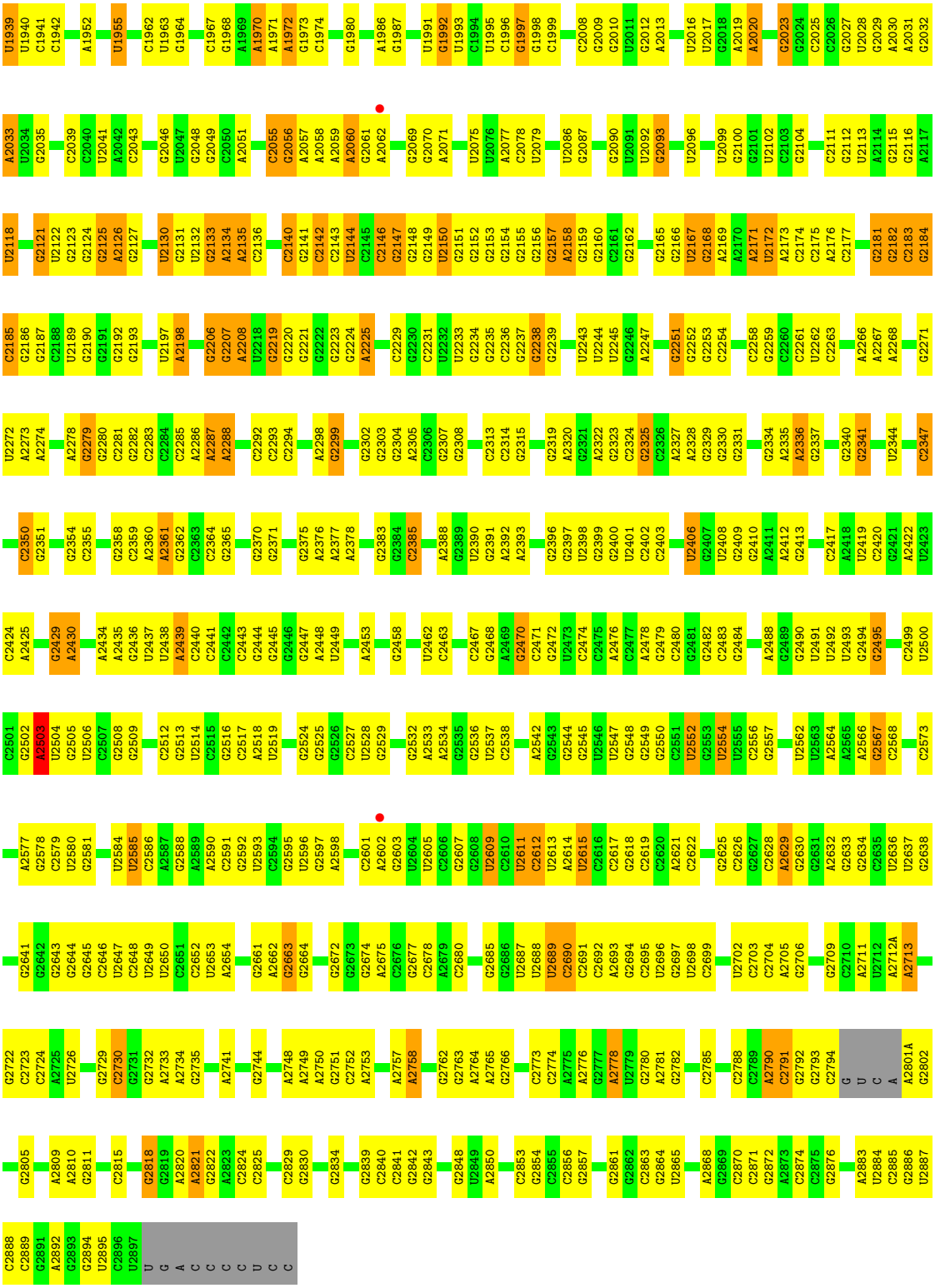
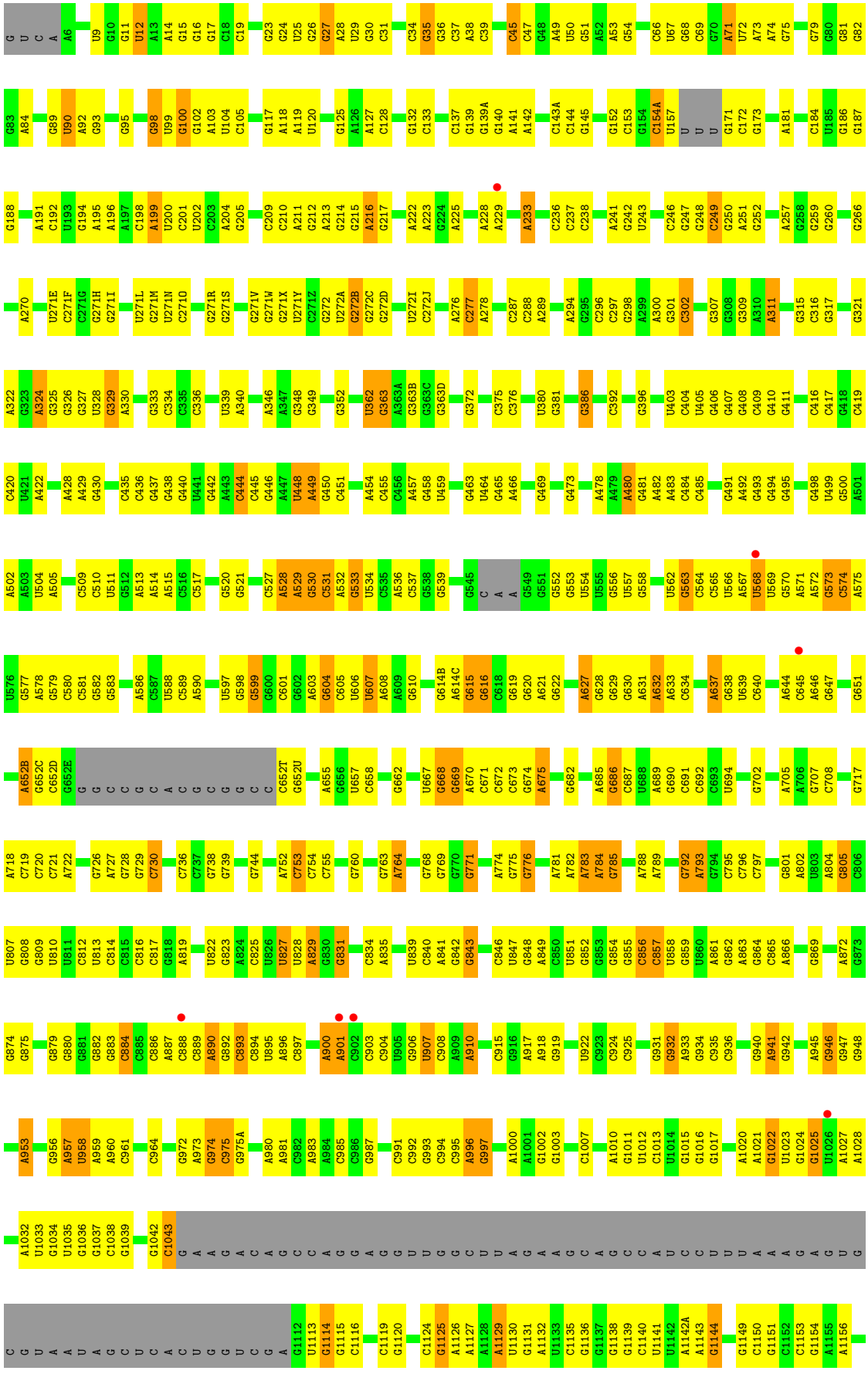


• Molecule 1: 23S Ribosomal RNA

Chain 2A: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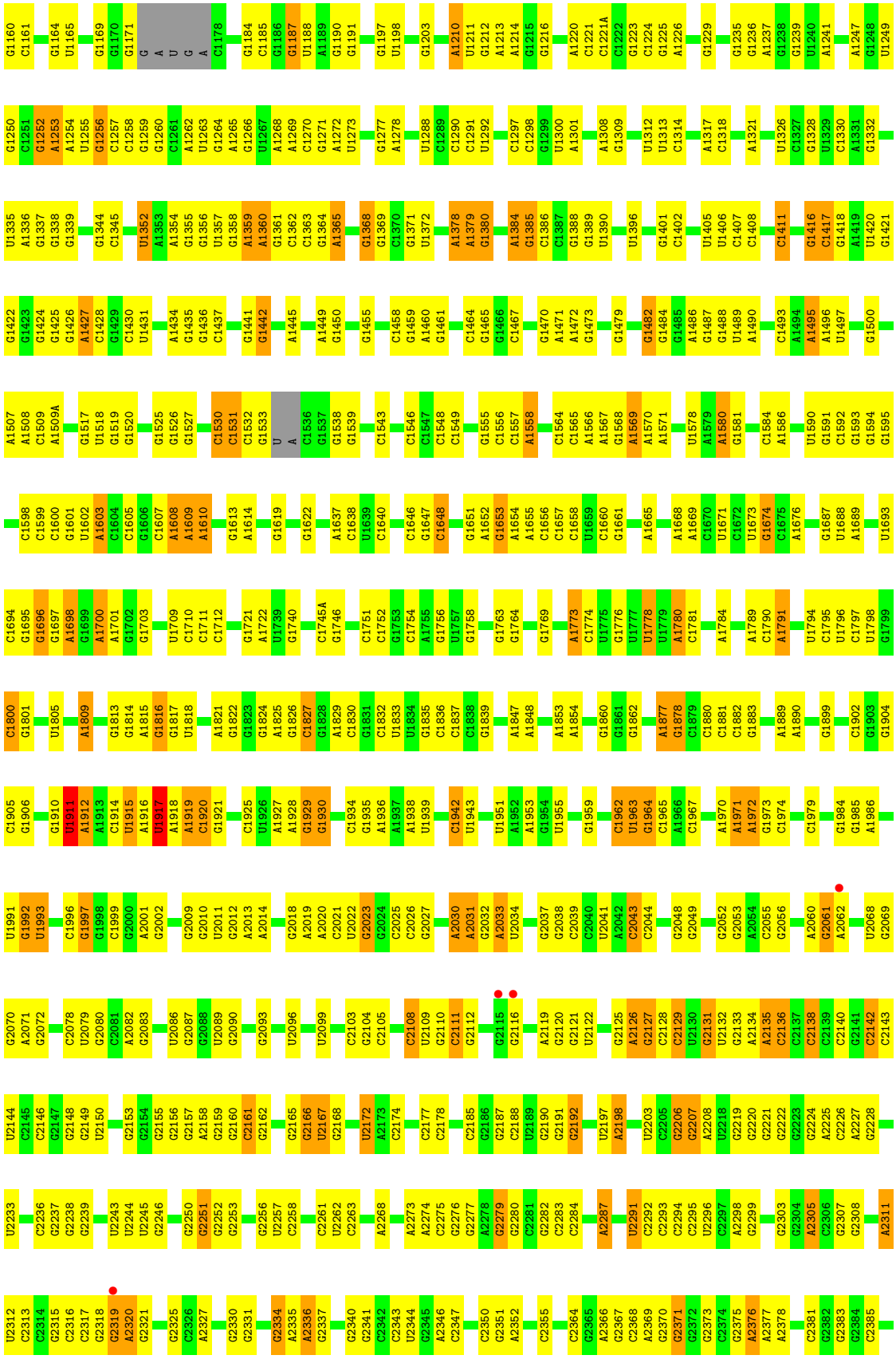
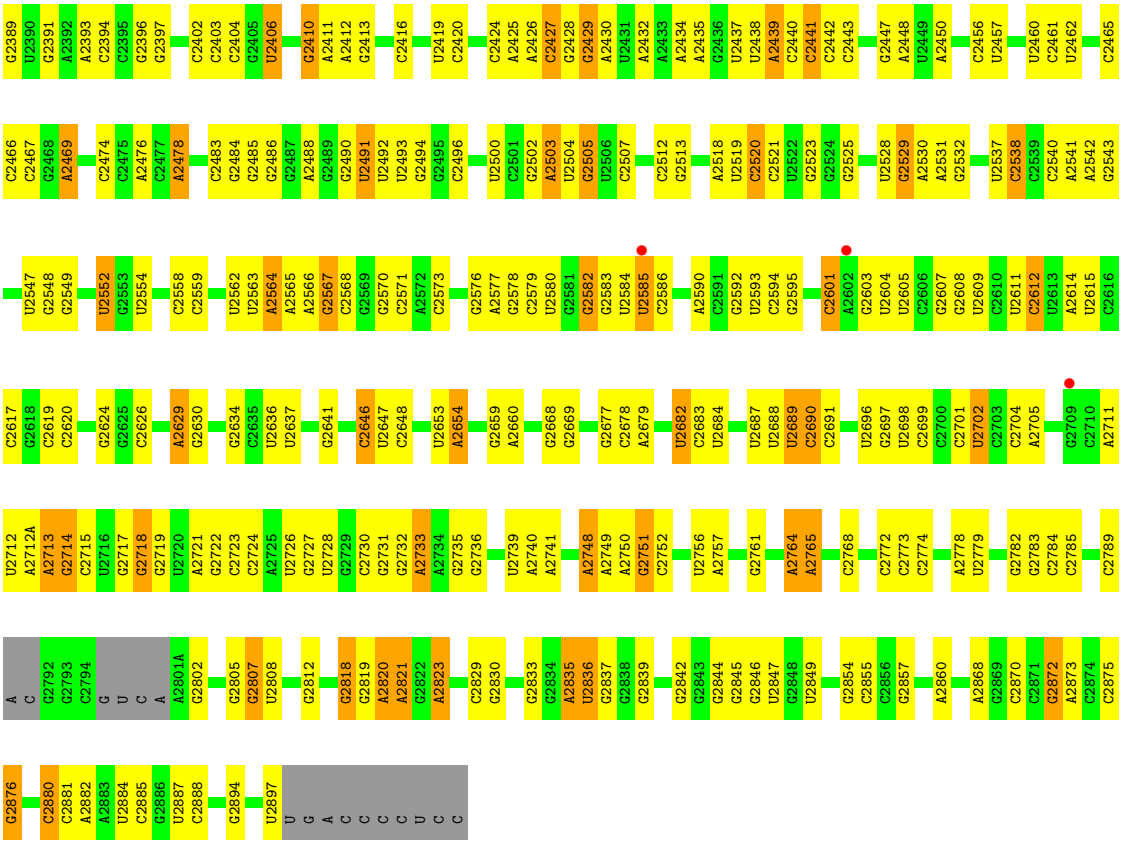
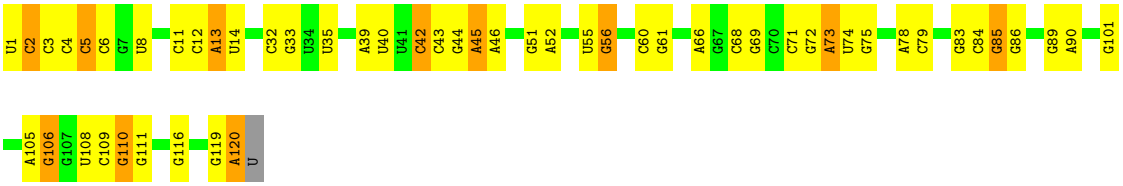




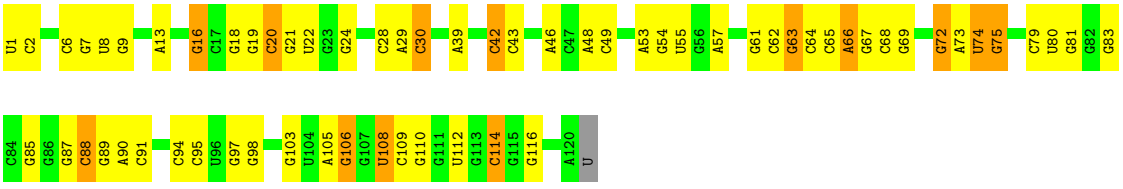
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



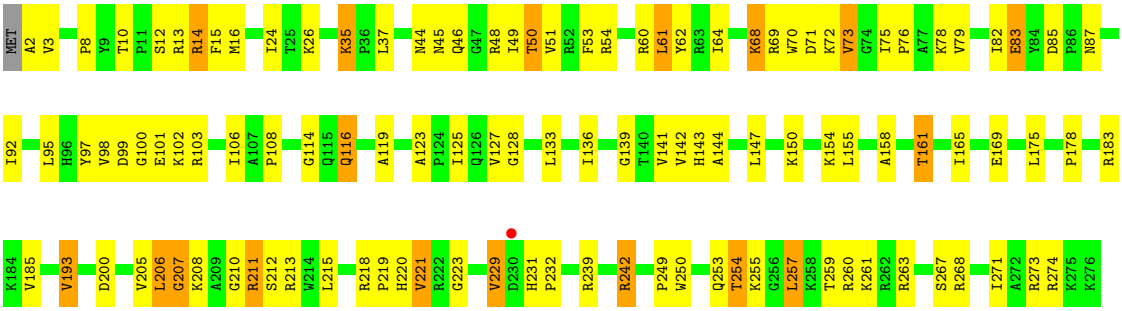
• Molecule 2: 5S Ribosomal RNA

Chain 2B:

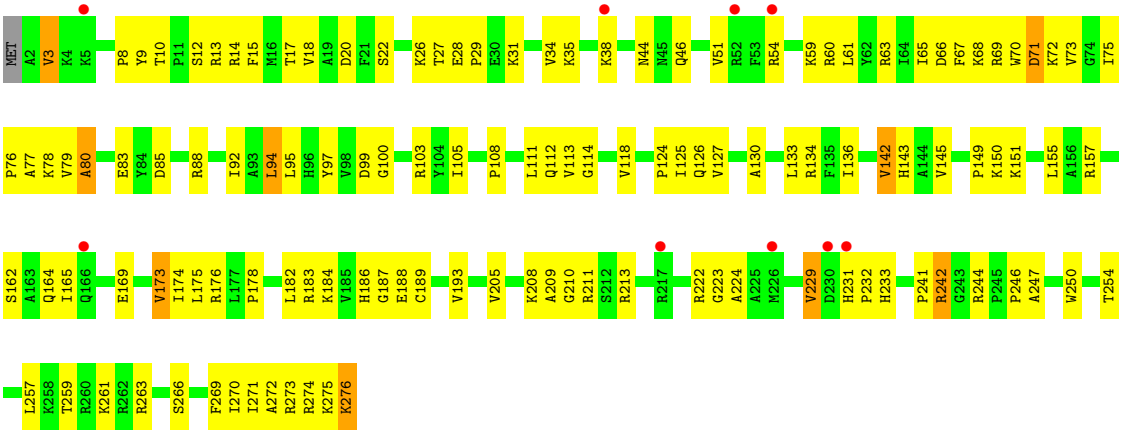


• Molecule 3: 50S ribosomal protein L2

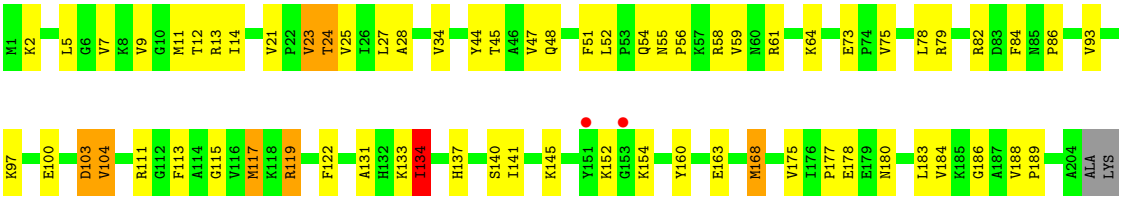
Chain 1D:



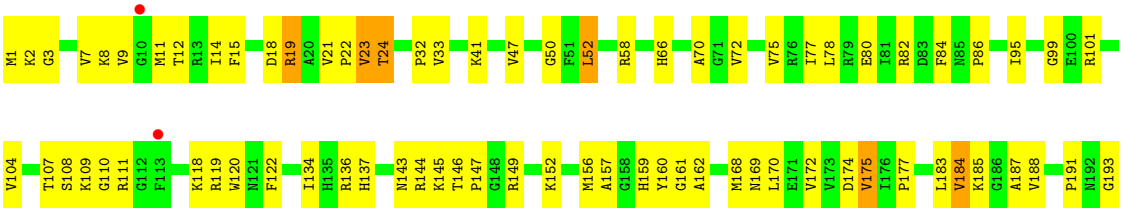
• Molecule 3: 50S ribosomal protein L2



• Molecule 4: 50S ribosomal protein L3

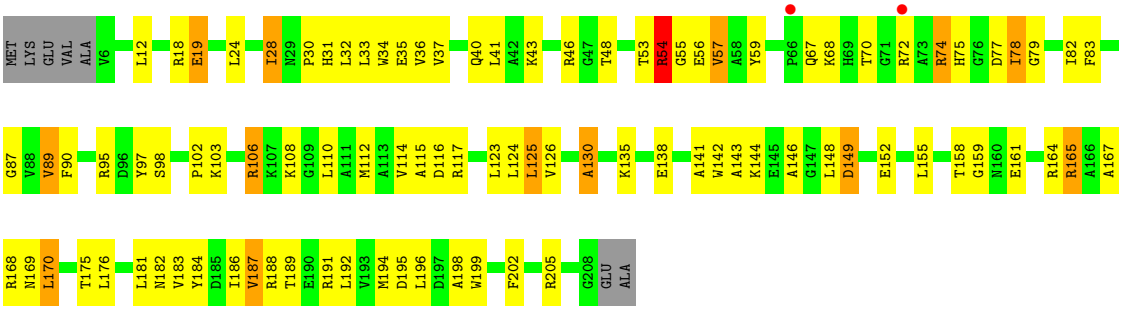


• Molecule 4: 50S ribosomal protein L3



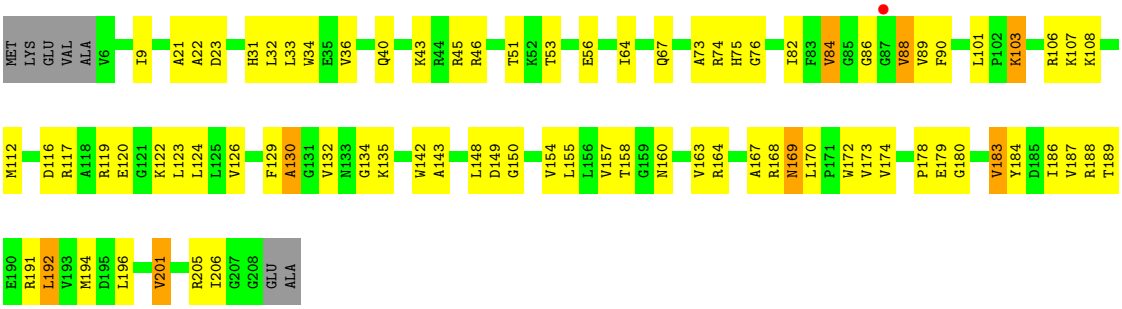
• Molecule 5: 50S ribosomal protein L4

Chain 1F:



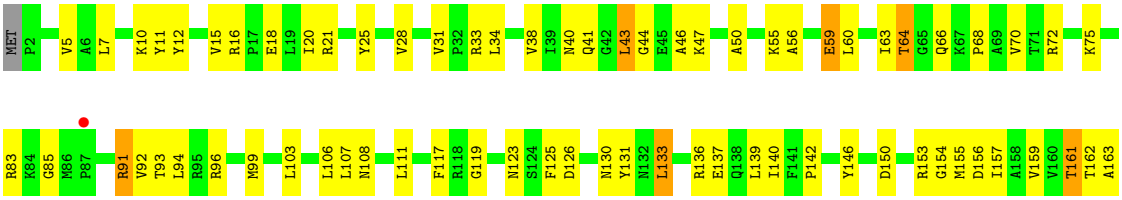
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



• Molecule 6: 50S ribosomal protein L5

Chain 1G:



• Molecule 6: 50S ribosomal protein L5

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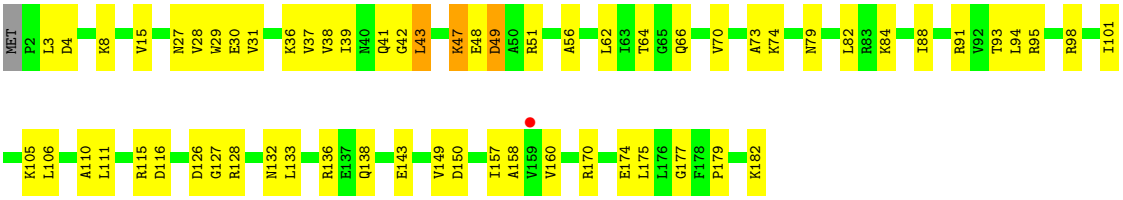
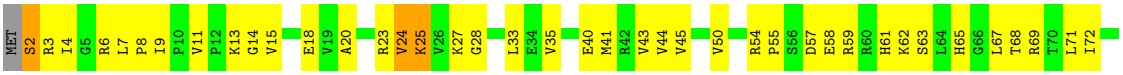
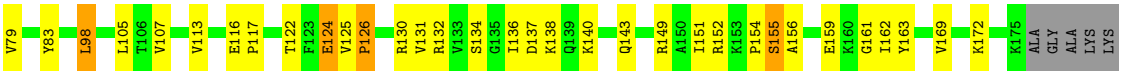


• Molecule 7: 50S ribosomal protein L6

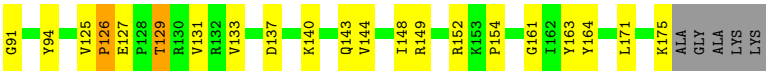
Chain 1H:





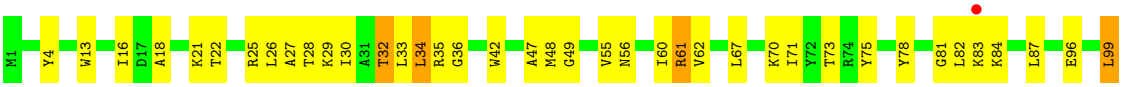
• Molecule 7: 50S ribosomal protein L6

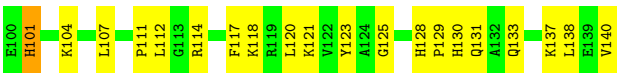
Chain 2H:



• Molecule 8: 50S ribosomal protein L13

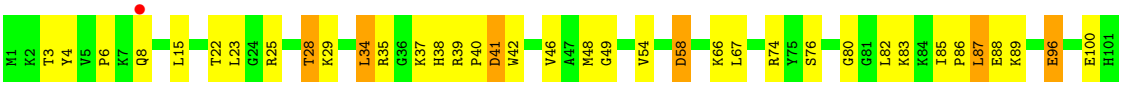
Chain 1N:

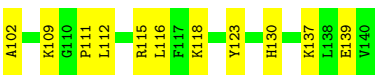




• Molecule 8: 50S ribosomal protein L13

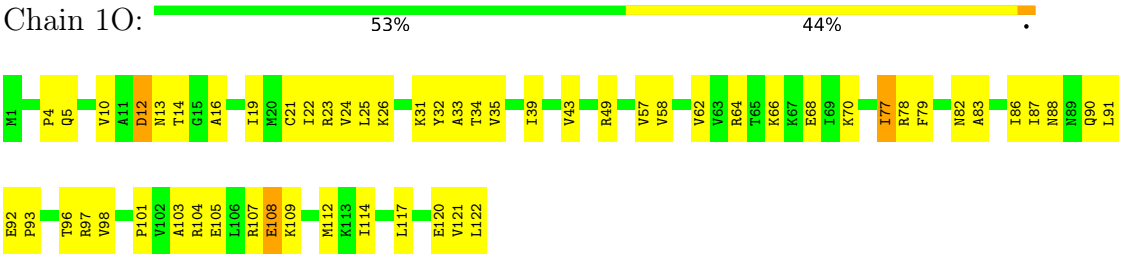
Chain 2N:





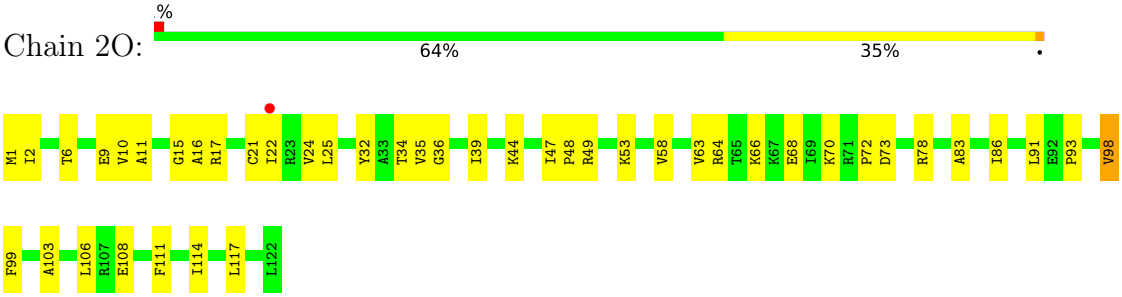
• Molecule 9: 50S ribosomal protein L14

Chain 1O:



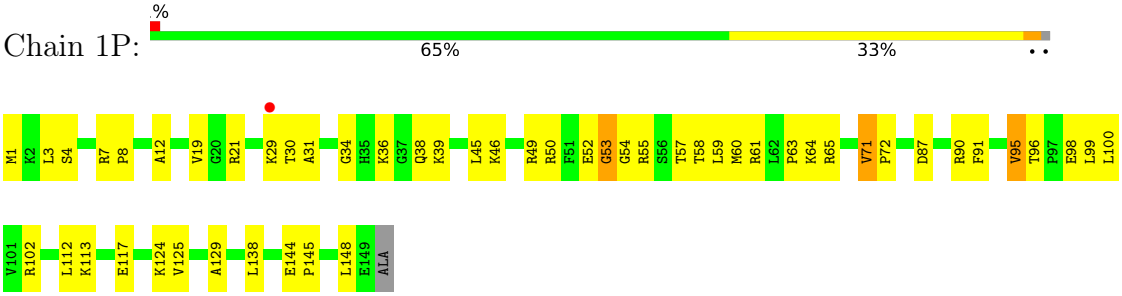
• Molecule 9: 50S ribosomal protein L14

Chain 2O:



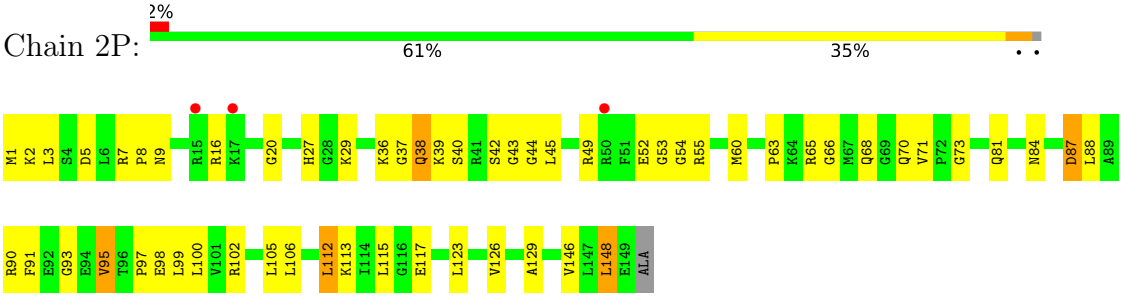
• Molecule 10: 50S ribosomal protein L15

Chain 1P:



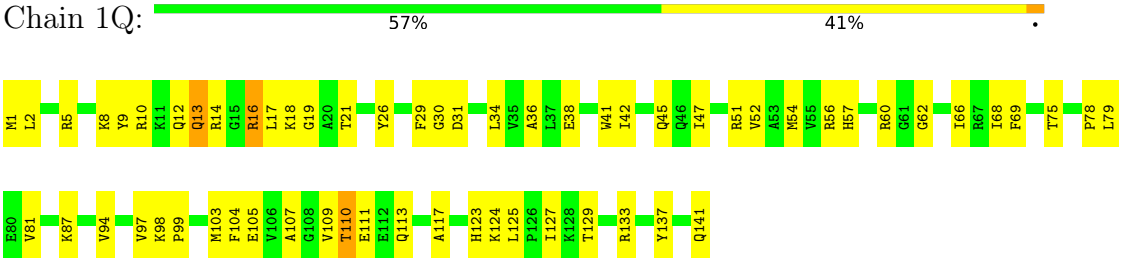
• Molecule 10: 50S ribosomal protein L15

Chain 2P:



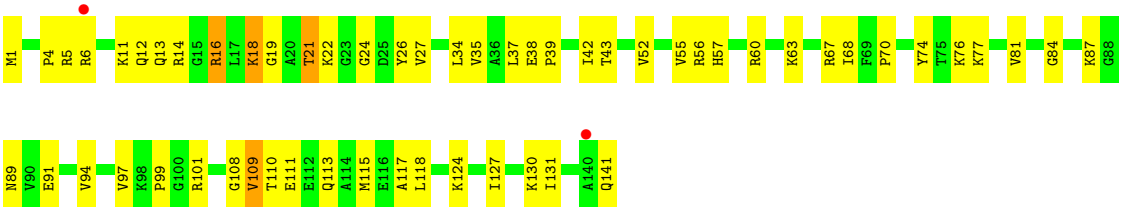
• Molecule 11: 50S ribosomal protein L16

Chain 1Q:



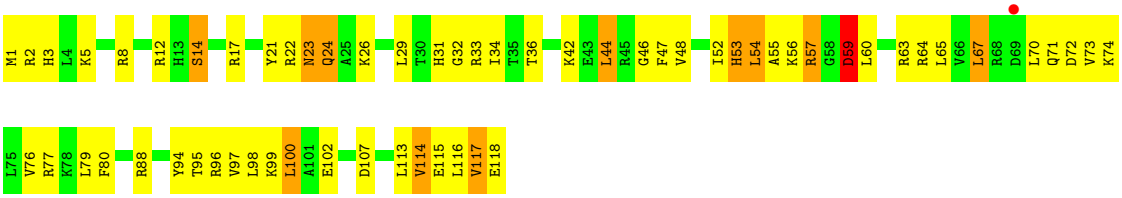
• Molecule 11: 50S ribosomal protein L16

Chain 2Q:



• Molecule 12: 50S ribosomal protein L17

Chain 1R:

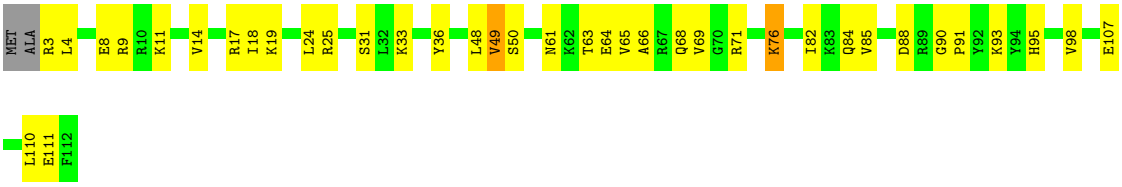


• Molecule 12: 50S ribosomal protein L17

Chain 2R:

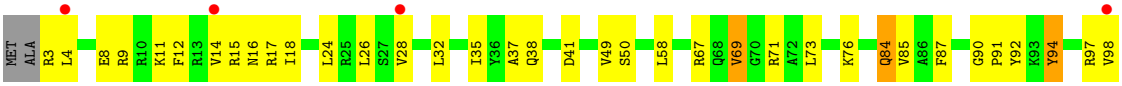
• Molecule 13: 50S ribosomal protein L18

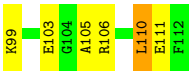
Chain 1S:



• Molecule 13: 50S ribosomal protein L18

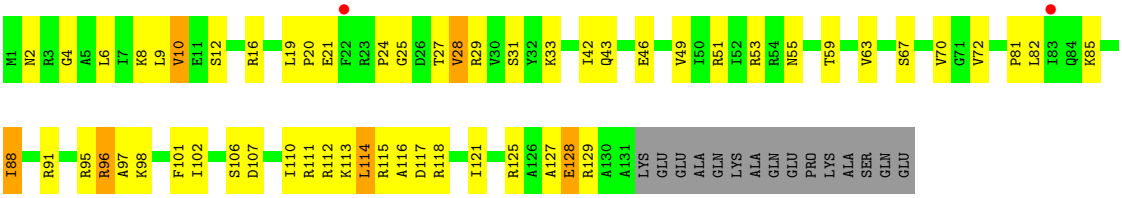
Chain 2S:





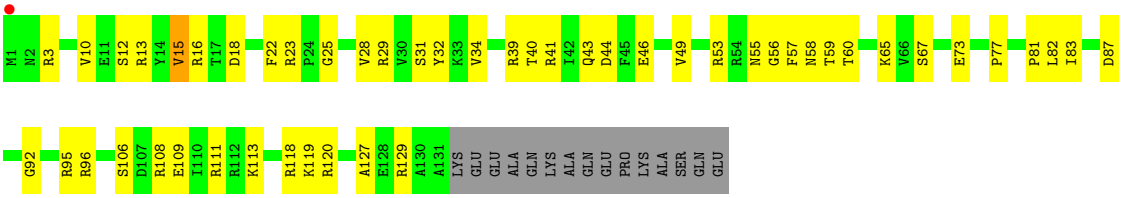
• Molecule 14: 50S ribosomal protein L19

Chain 1T:



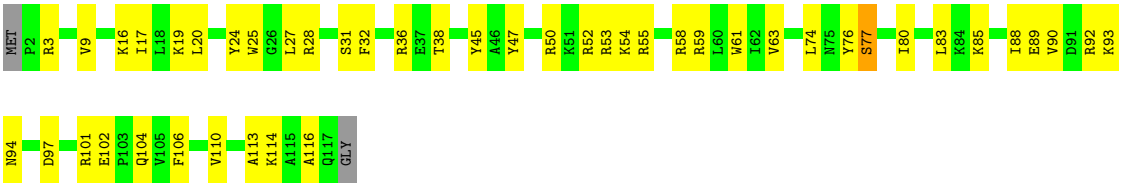
• Molecule 14: 50S ribosomal protein L19

Chain 2T:



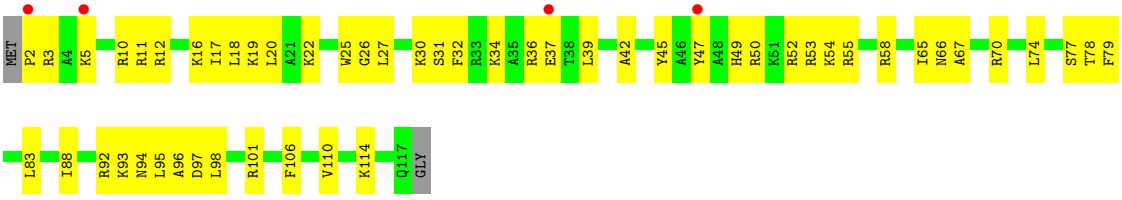
• Molecule 15: 50S ribosomal protein L20

Chain 1U:



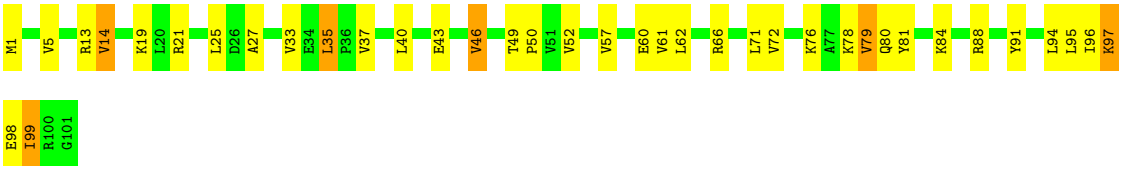
• Molecule 15: 50S ribosomal protein L20

Chain 2U:

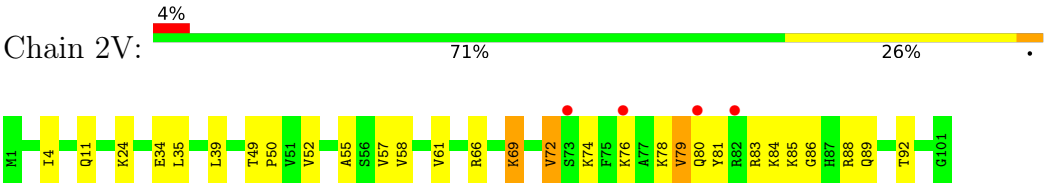


• Molecule 16: 50S ribosomal protein L21

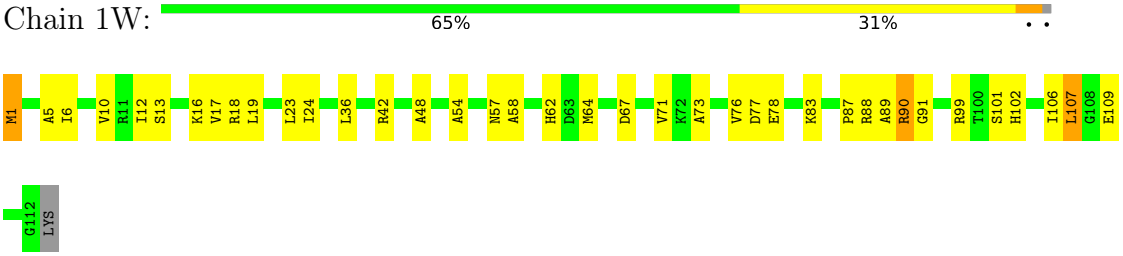
Chain 1V:



• Molecule 16: 50S ribosomal protein L21

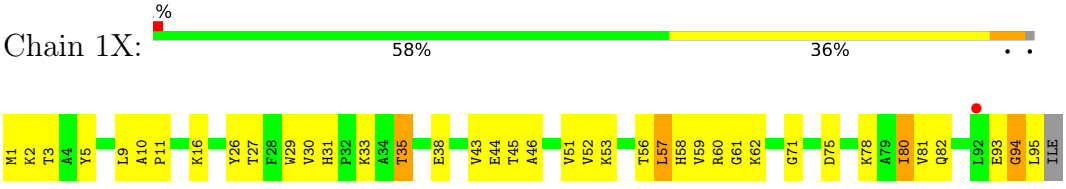


• Molecule 17: 50S ribosomal protein L22

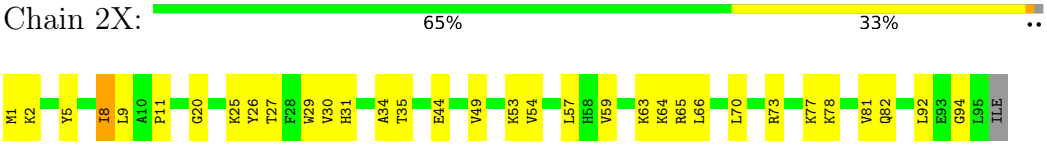


• Molecule 17: 50S ribosomal protein L22

• Molecule 18: 50S ribosomal protein L23

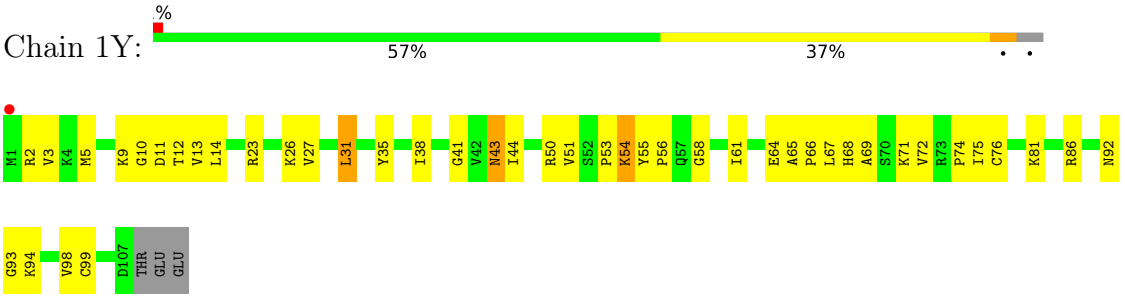


• Molecule 18: 50S ribosomal protein L23



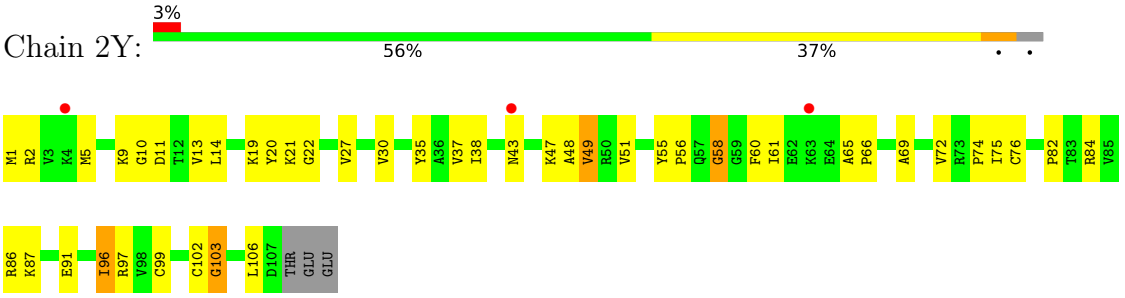
• Molecule 19: 50S ribosomal protein L24

Chain 1Y:



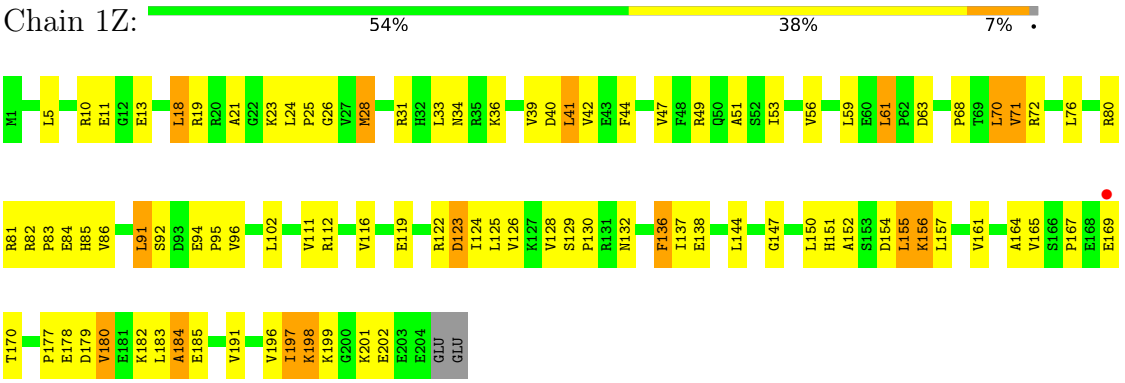
• Molecule 19: 50S ribosomal protein L24

Chain 2Y:



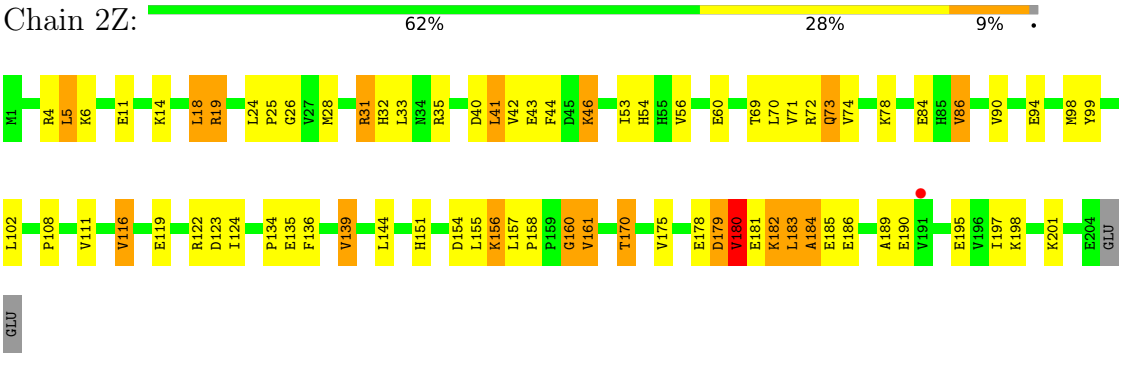
• Molecule 20: 50S ribosomal protein L25

Chain 1Z:



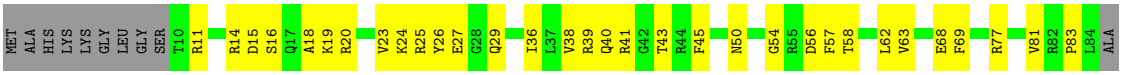
• Molecule 20: 50S ribosomal protein L25

Chain 2Z:



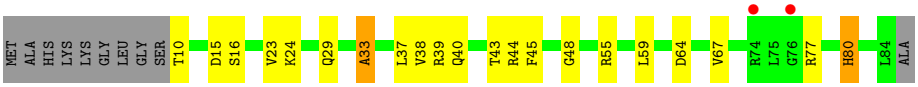
• Molecule 21: 50S ribosomal protein L27

Chain 10:



• Molecule 21: 50S ribosomal protein L27

Chain 20:

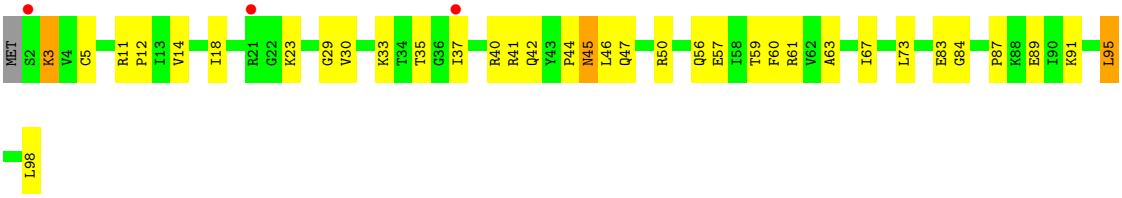


• Molecule 22: 50S ribosomal protein L28

Chain 11:

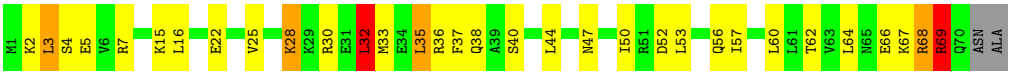
• Molecule 22: 50S ribosomal protein L28

Chain 21:



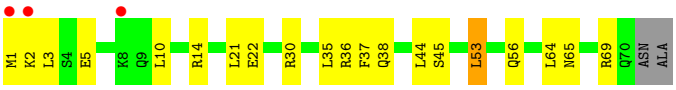
• Molecule 23: 50S ribosomal protein L29

Chain 12:



• Molecule 23: 50S ribosomal protein L29

Chain 22:

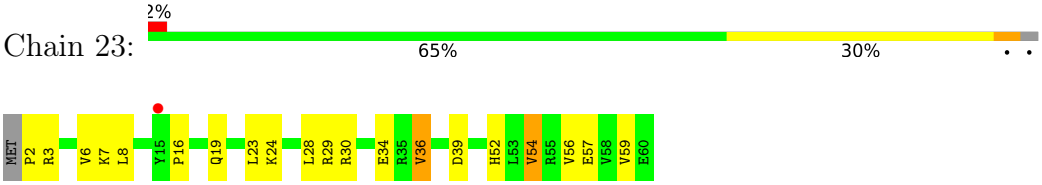


• Molecule 24: 50S ribosomal protein L30

Chain 13:

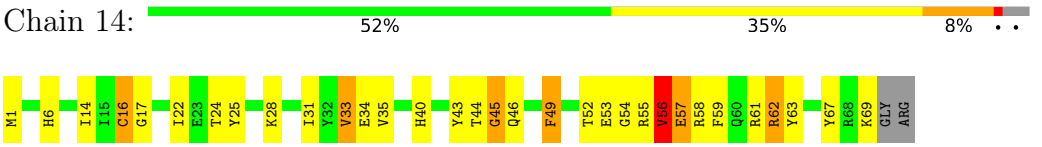
• Molecule 24: 50S ribosomal protein L30

Chain 23:



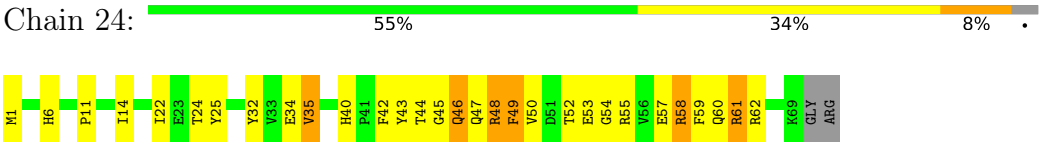
• Molecule 25: 50S ribosomal protein L31

Chain 14:



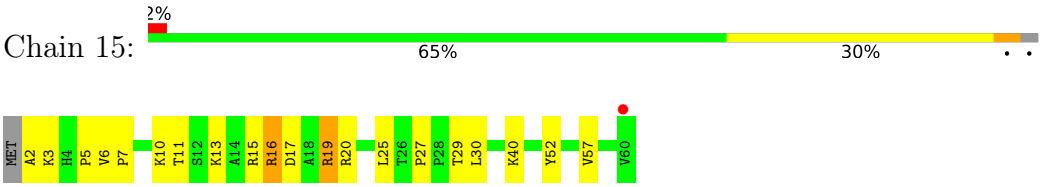
• Molecule 25: 50S ribosomal protein L31

Chain 24:



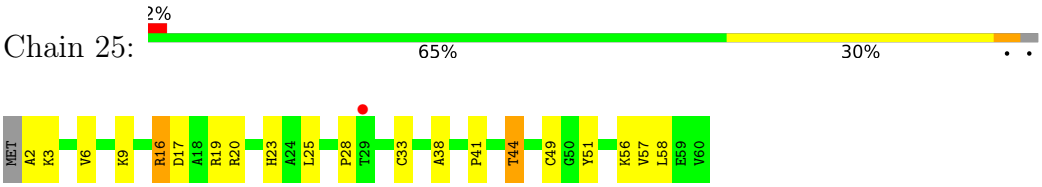
• Molecule 26: 50S ribosomal protein L32

Chain 15:



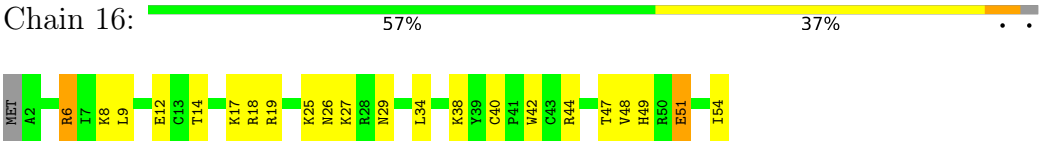
• Molecule 26: 50S ribosomal protein L32

Chain 25:



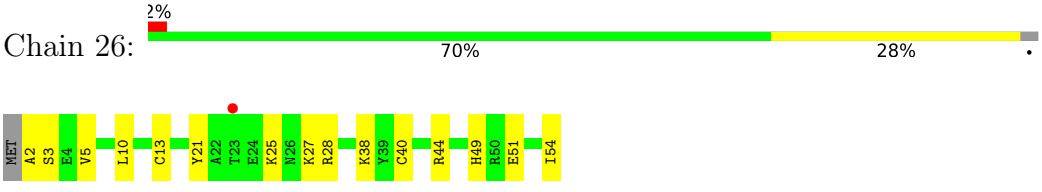
• Molecule 27: 50S ribosomal protein L33

Chain 16:



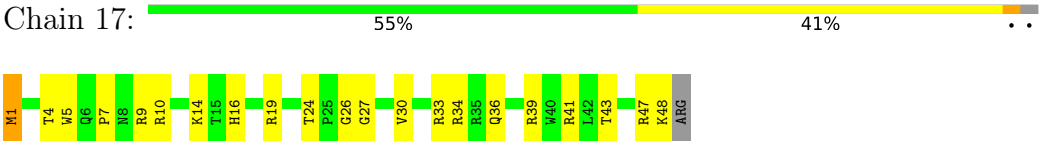
• Molecule 27: 50S ribosomal protein L33

Chain 26:



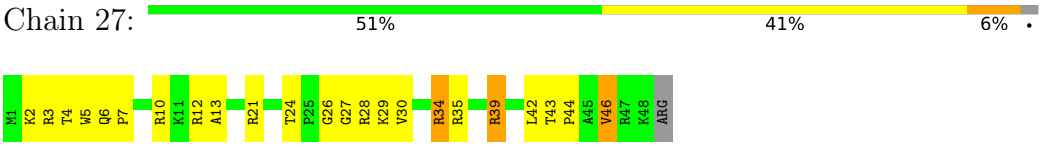
• Molecule 28: 50S ribosomal protein L34

Chain 17:



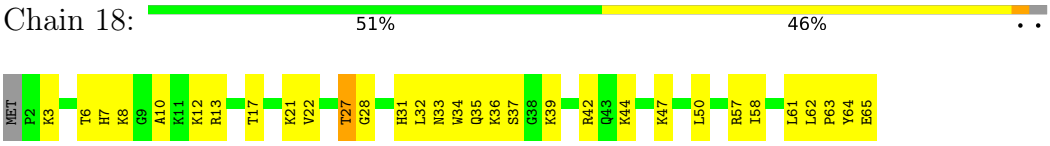
• Molecule 28: 50S ribosomal protein L34

Chain 27:



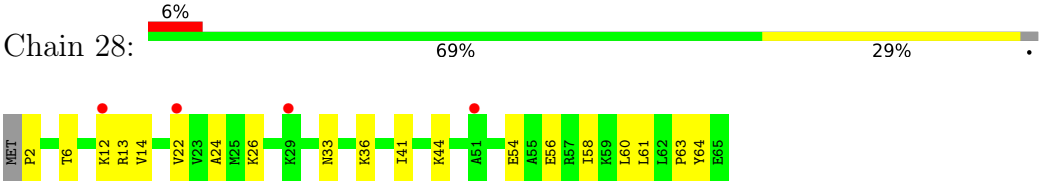
• Molecule 29: 50S ribosomal protein L35

Chain 18:



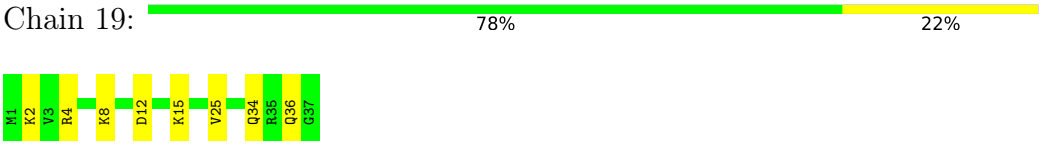
• Molecule 29: 50S ribosomal protein L35

Chain 28:



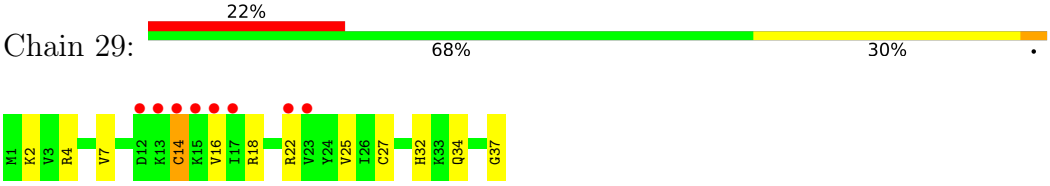
• Molecule 30: 50S ribosomal protein L36

Chain 19:



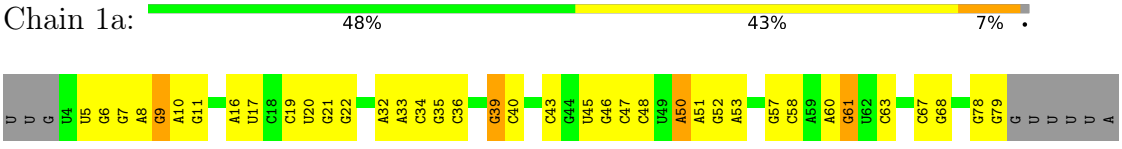
• Molecule 30: 50S ribosomal protein L36

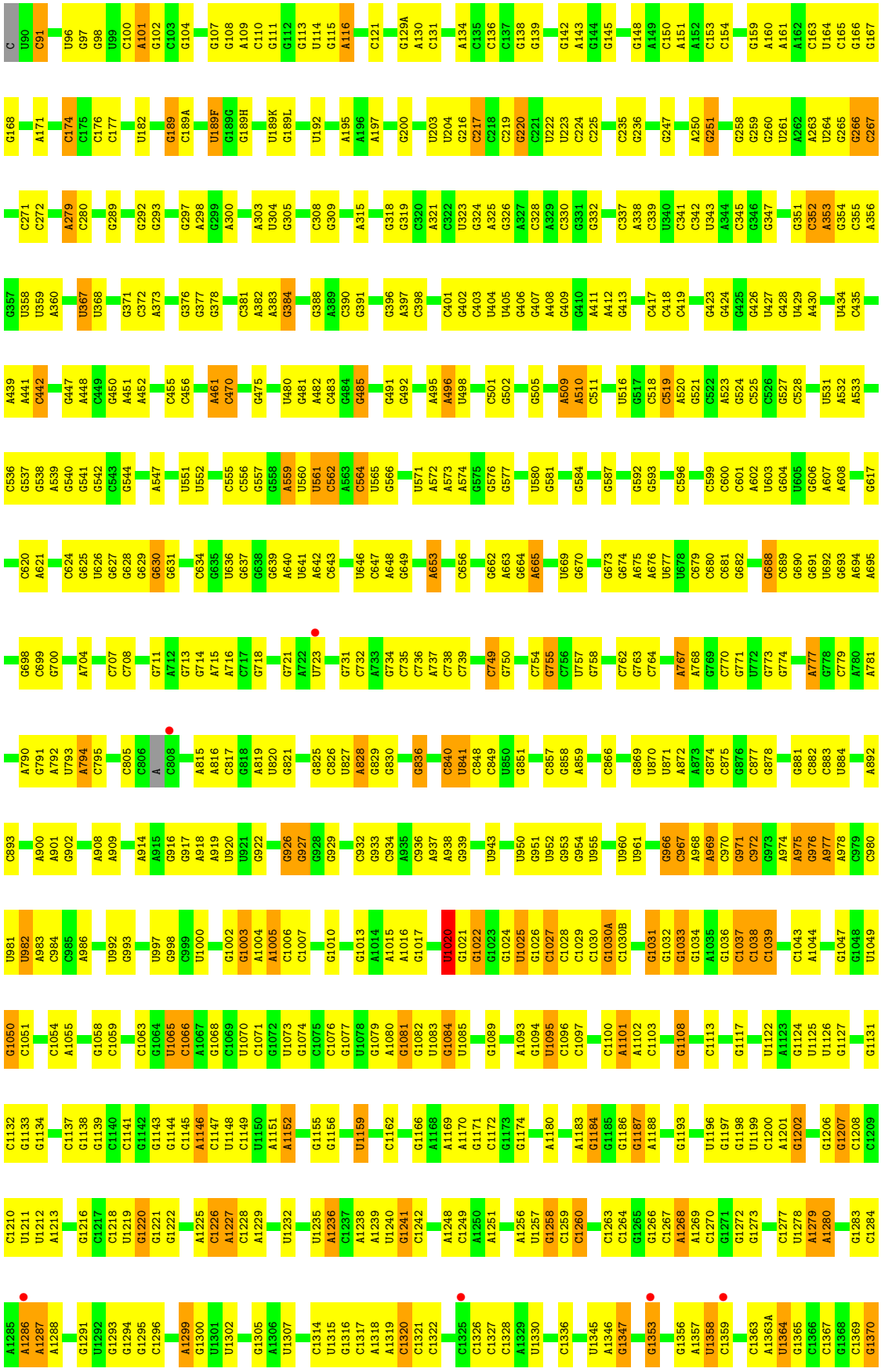
Chain 29:

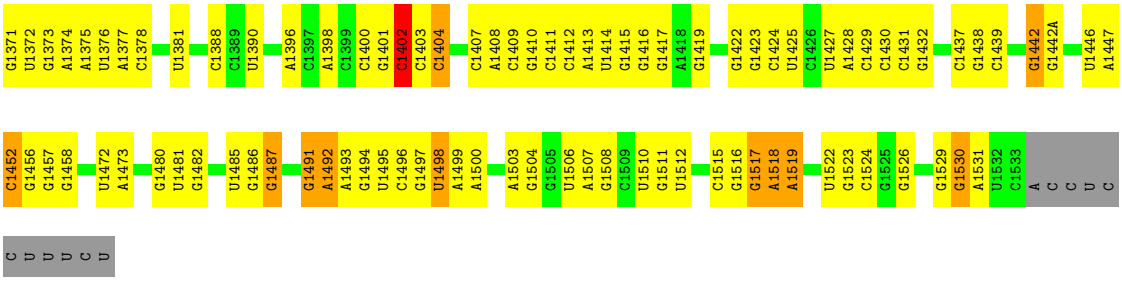


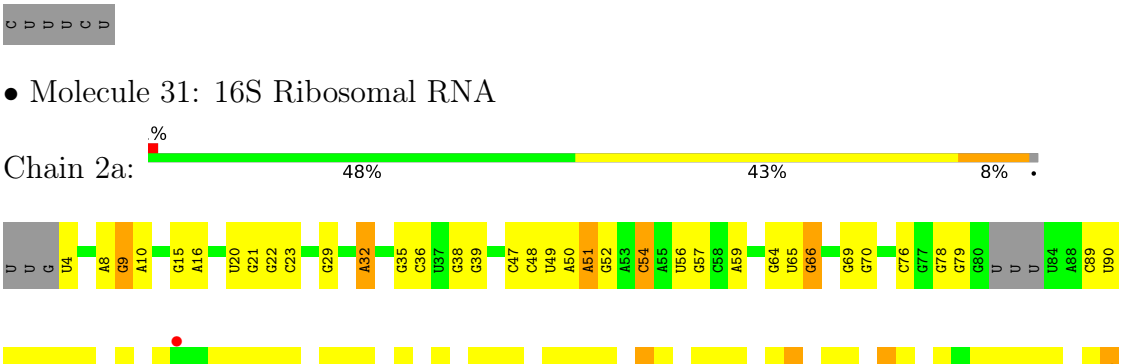
• Molecule 31: 16S Ribosomal RNA

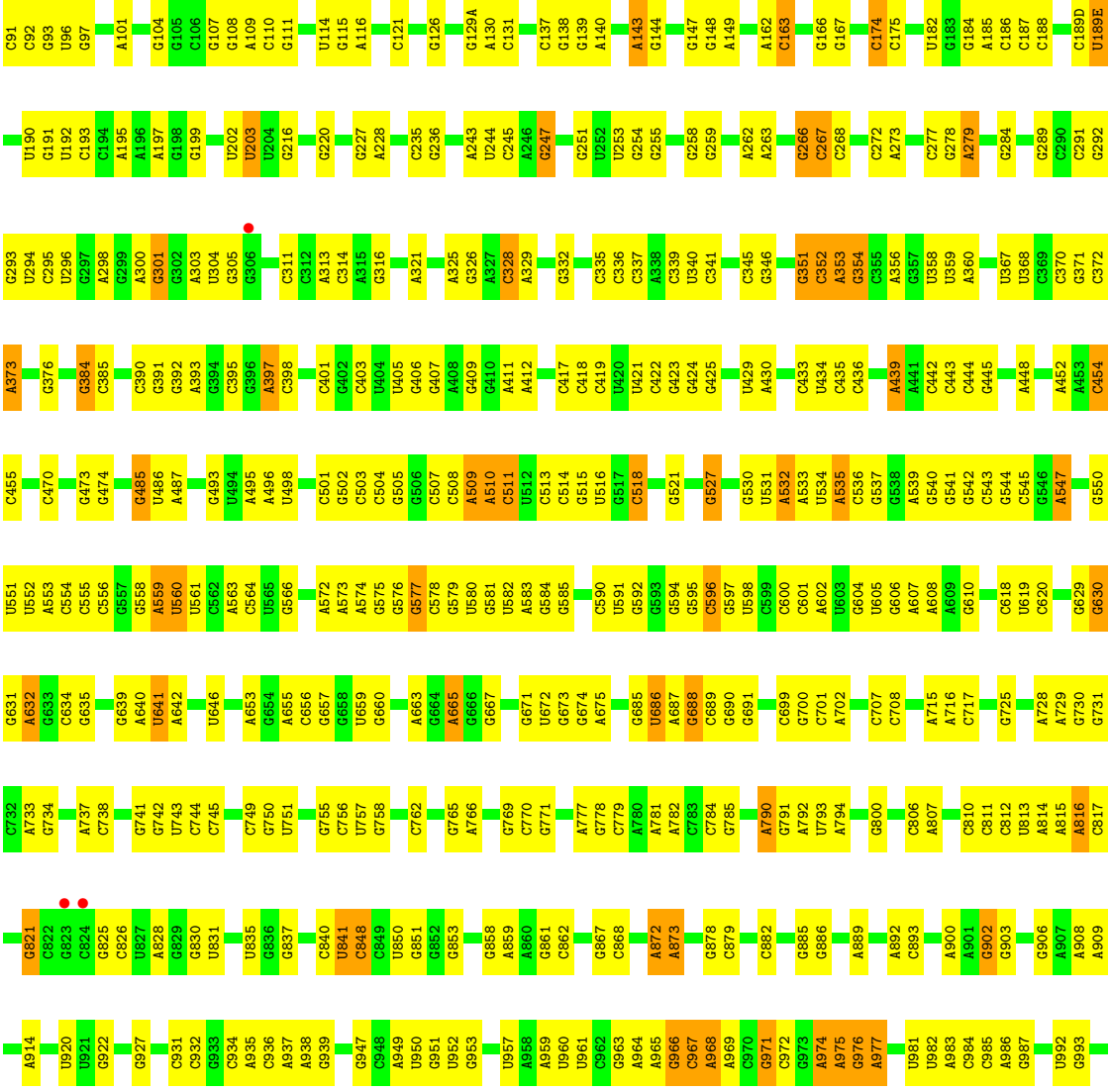
Chain 1a:





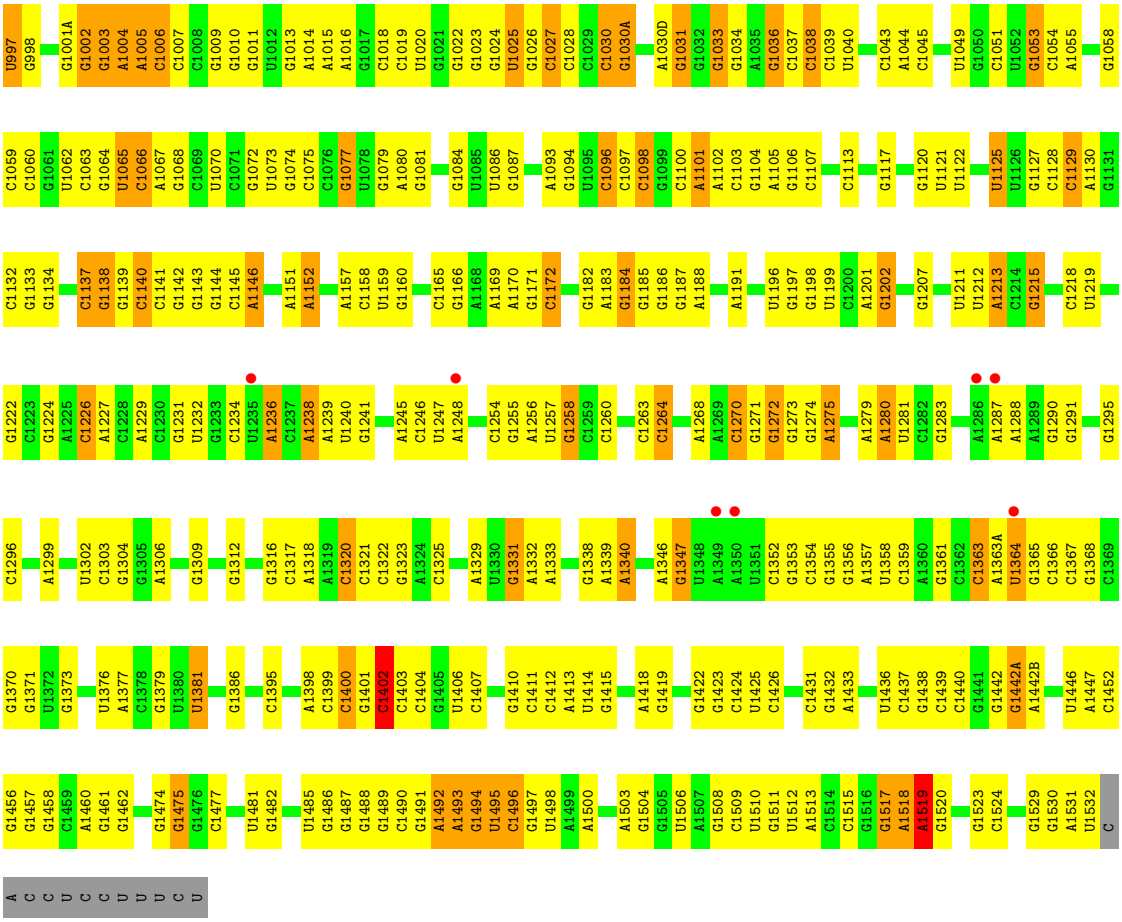






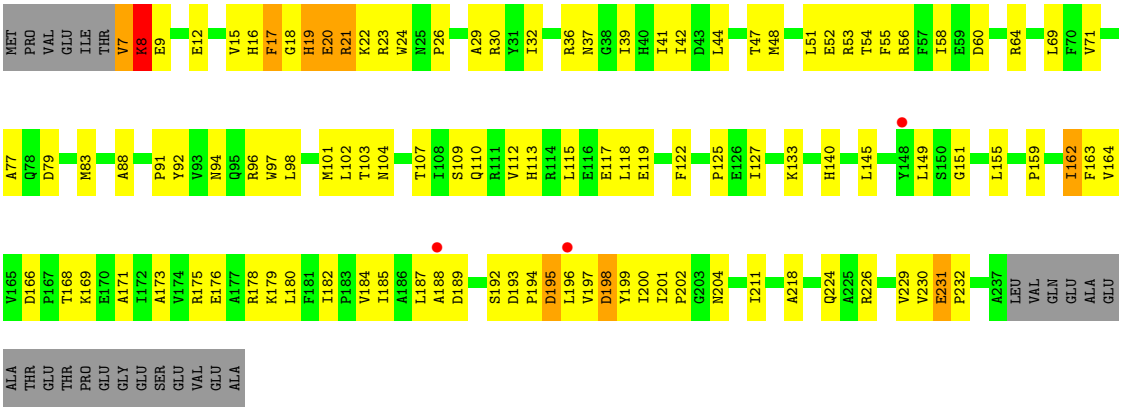
• Molecule 31: 16S Ribosomal RNA

Chain 2a:



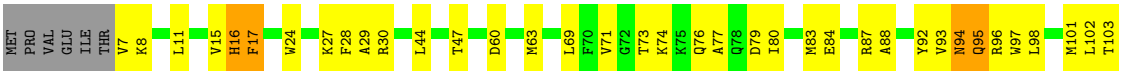
• Molecule 32: 30S ribosomal protein S2

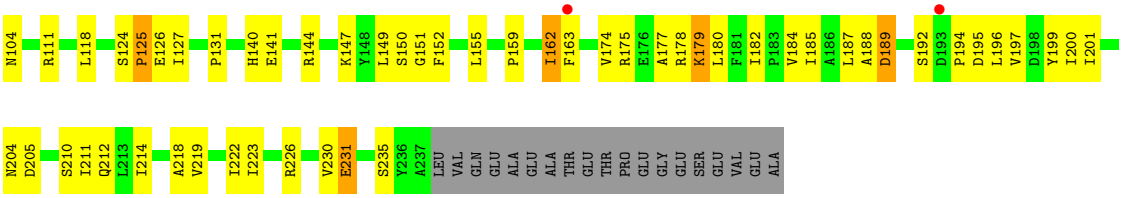
Chain 1b:



• Molecule 32: 30S ribosomal protein S2

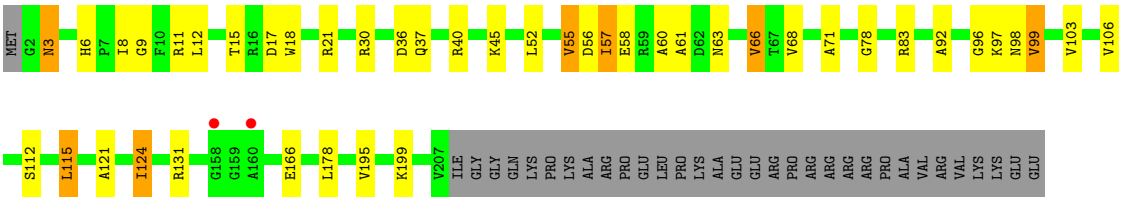
Chain 2b:





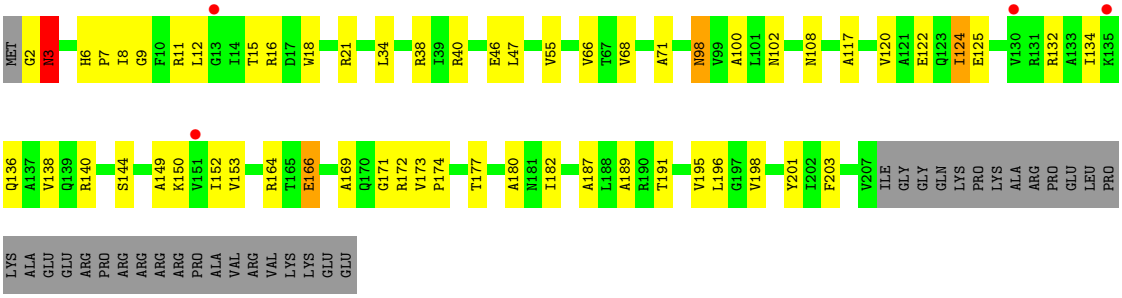
• Molecule 33: 30S ribosomal protein S3

Chain 1c:



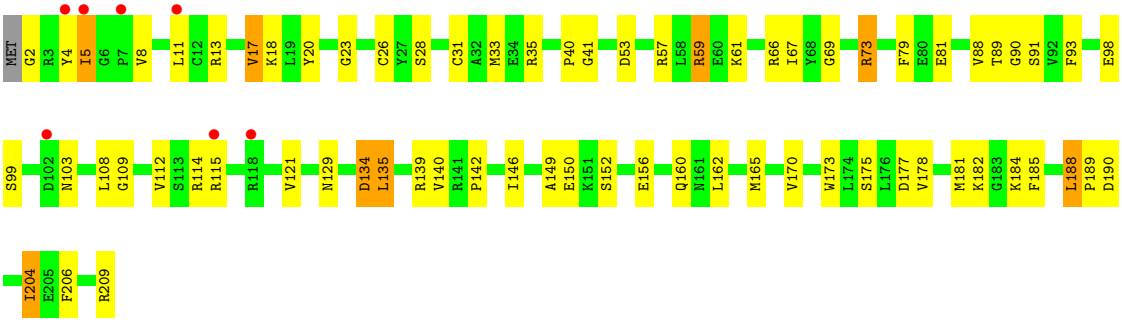
• Molecule 33: 30S ribosomal protein S3

Chain 2c:



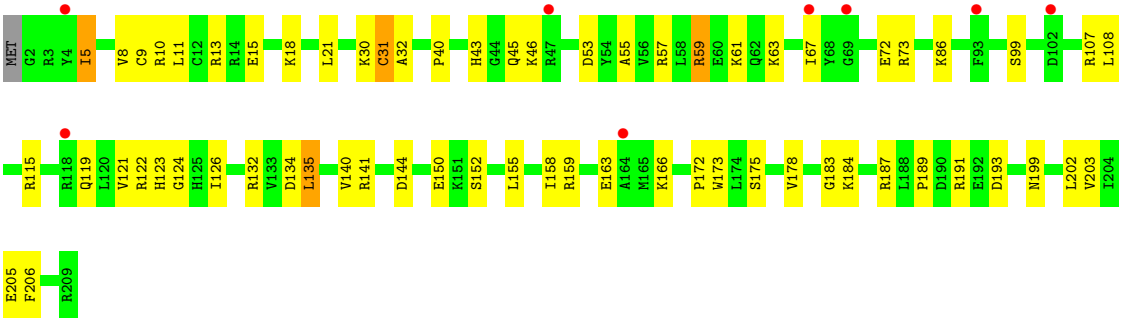
• Molecule 34: 30S ribosomal protein S4

Chain 1d:



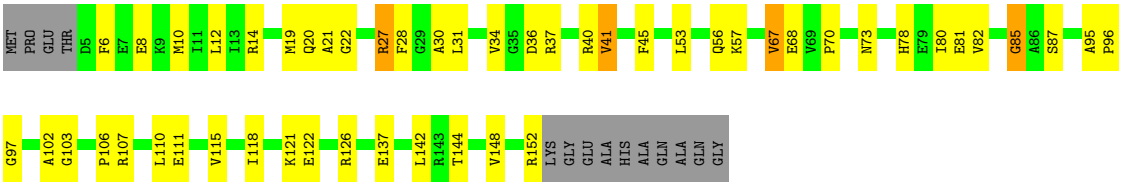
• Molecule 34: 30S ribosomal protein S4

Chain 2d:



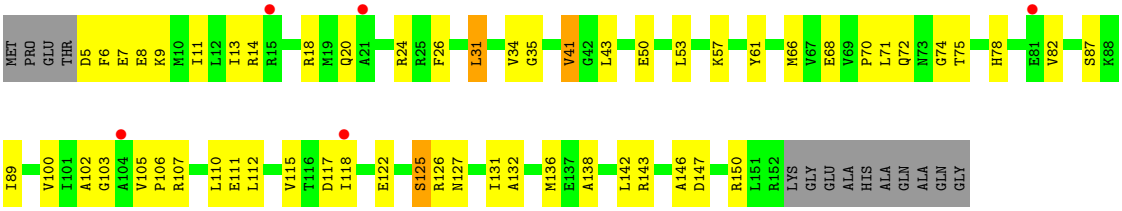
• Molecule 35: 30S ribosomal protein S5

Chain 1e:



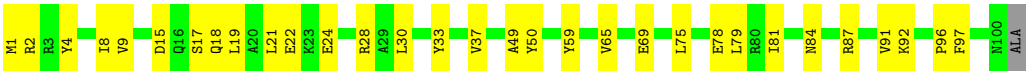
• Molecule 35: 30S ribosomal protein S5

Chain 2e:



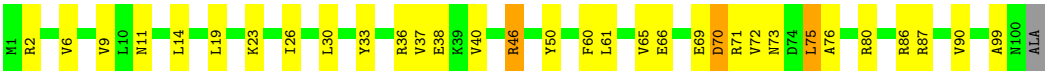
• Molecule 36: 30S ribosomal protein S6

Chain 1f:



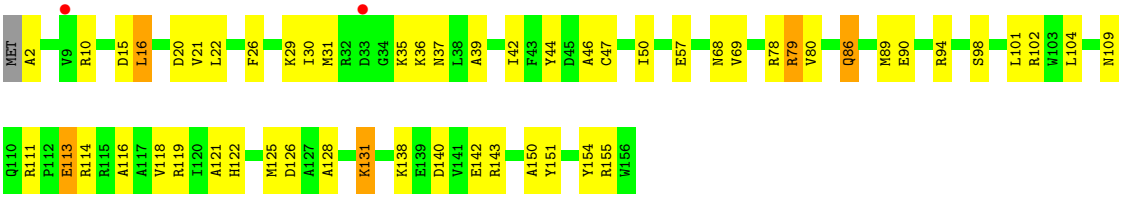
• Molecule 36: 30S ribosomal protein S6

Chain 2f:

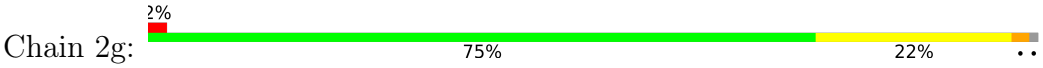


• Molecule 37: 30S ribosomal protein S7

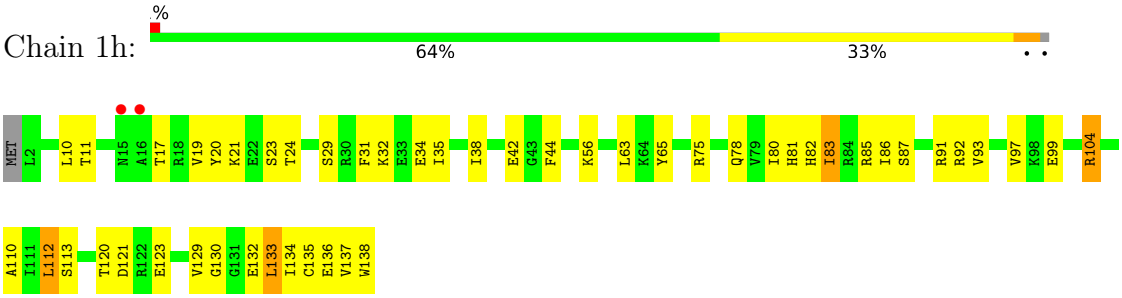
Chain 1g:



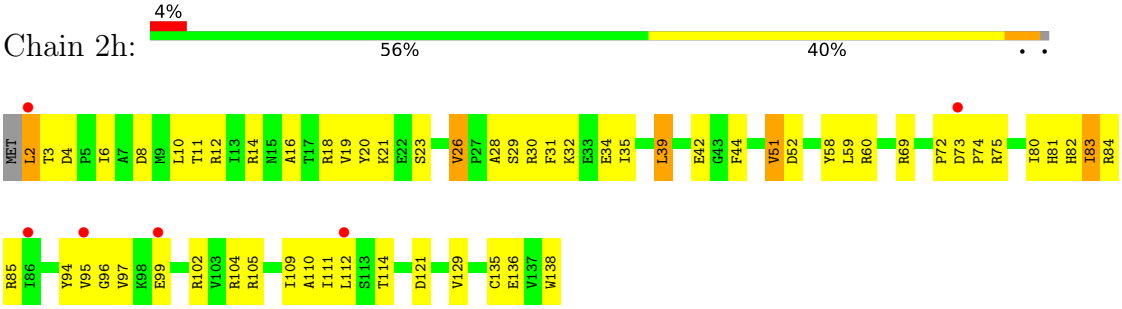
• Molecule 37: 30S ribosomal protein S7



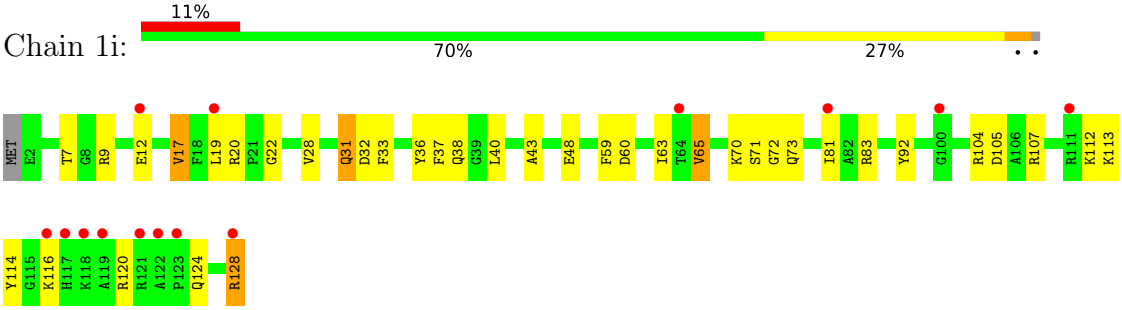
• Molecule 38: 30S ribosomal protein S8



• Molecule 38: 30S ribosomal protein S8

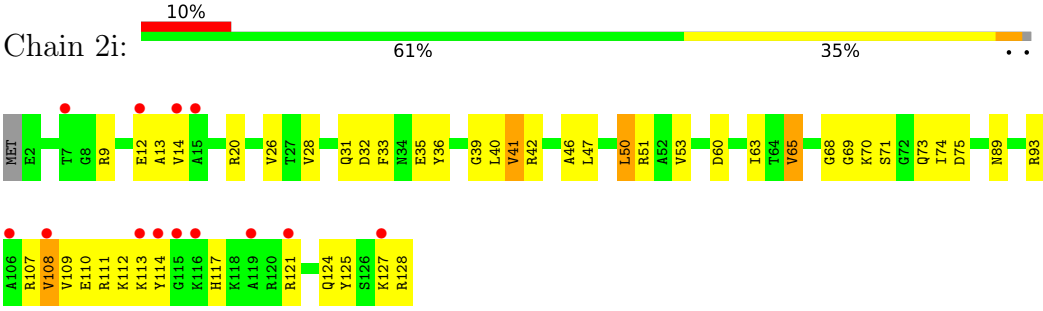


• Molecule 39: 30S ribosomal protein S9



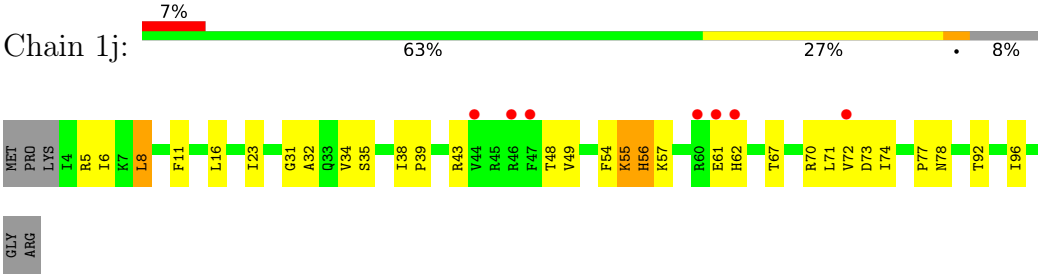
• Molecule 39: 30S ribosomal protein S9

Chain 2i:



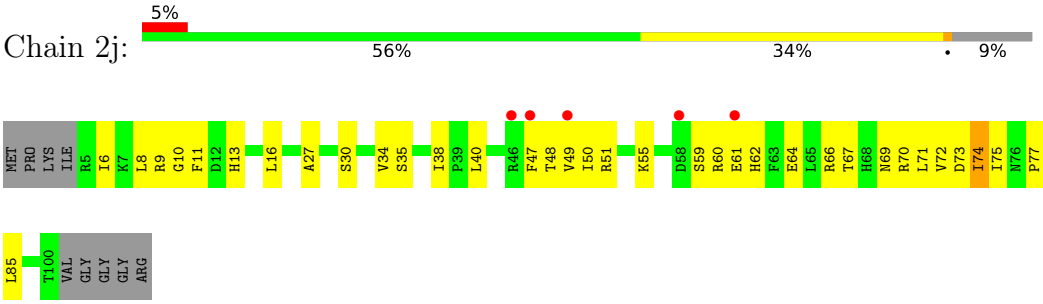
• Molecule 40: 30S ribosomal protein S10

Chain 1j:



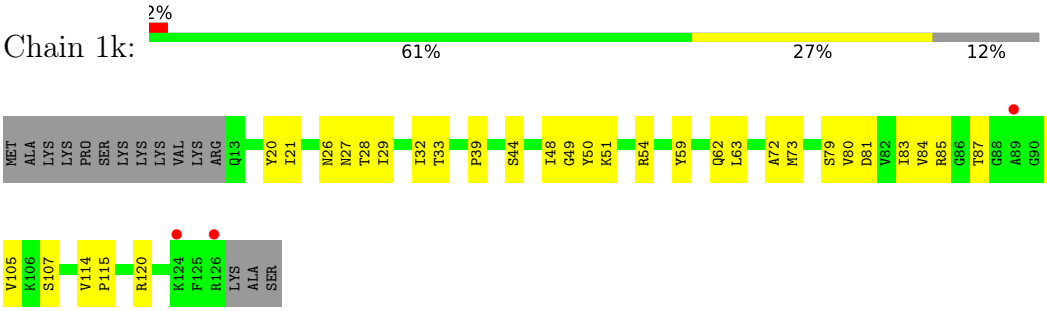
• Molecule 40: 30S ribosomal protein S10

Chain 2j:



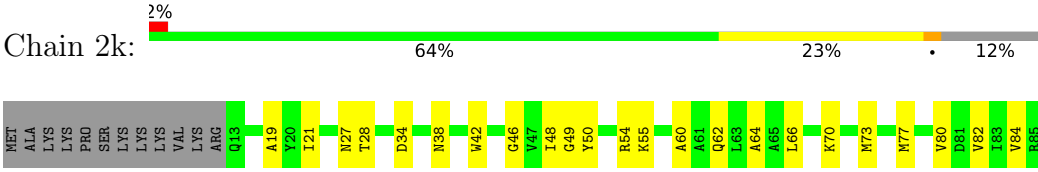
• Molecule 41: 30S ribosomal protein S11

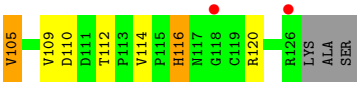
Chain 1k:



• Molecule 41: 30S ribosomal protein S11

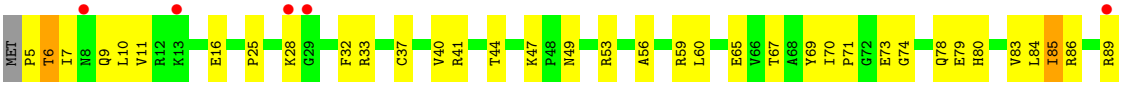
Chain 2k:





• Molecule 42: 30S ribosomal protein S12

Chain 1l:

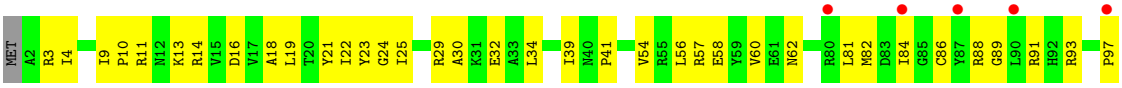


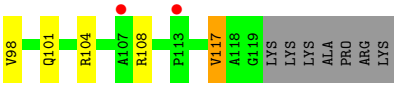
• Molecule 42: 30S ribosomal protein S12

Chain 2l:

• Molecule 43: 30S ribosomal protein S13

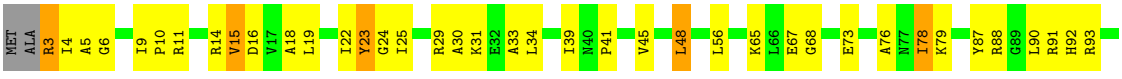
Chain 1m:

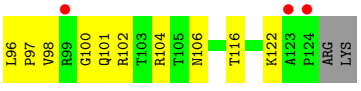




• Molecule 43: 30S ribosomal protein S13

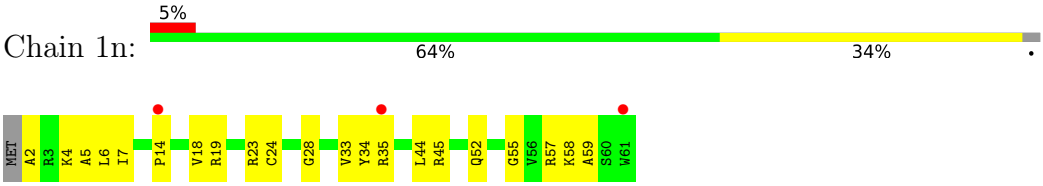
Chain 2m:





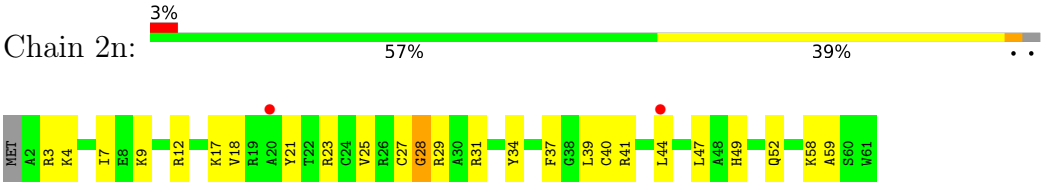
• Molecule 44: 30S ribosomal protein S14 type Z

Chain 1n:



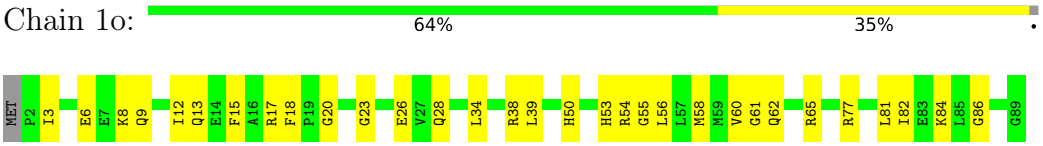
• Molecule 44: 30S ribosomal protein S14 type Z

Chain 2n:



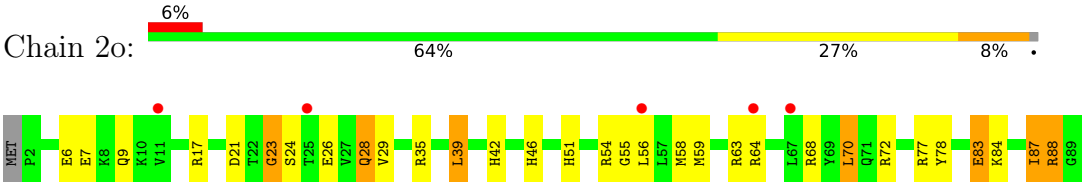
• Molecule 45: 30S ribosomal protein S15

Chain 1o:



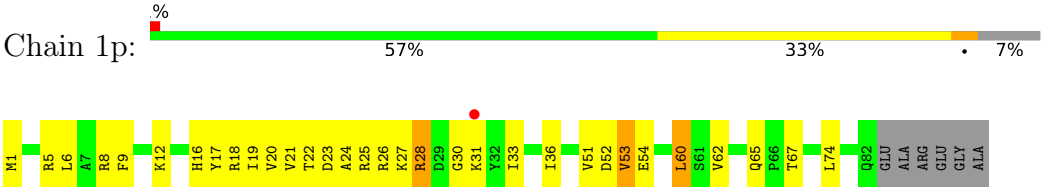
• Molecule 45: 30S ribosomal protein S15

Chain 2o:



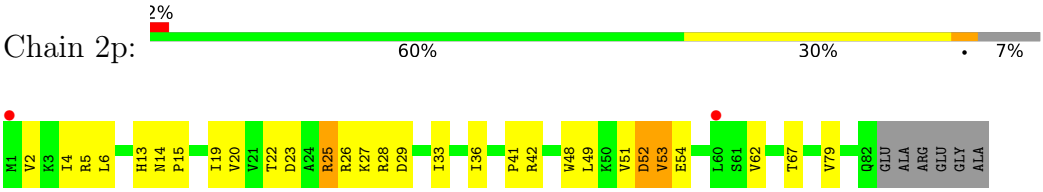
• Molecule 46: 30S ribosomal protein S16

Chain 1p:



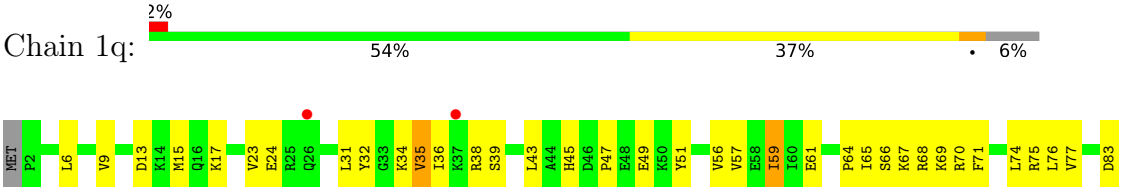
• Molecule 46: 30S ribosomal protein S16

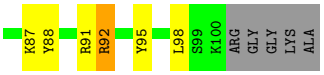
Chain 2p:



• Molecule 47: 30S ribosomal protein S17

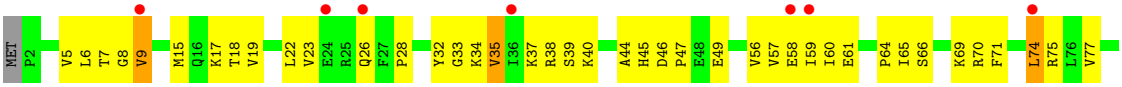
Chain 1q:





• Molecule 47: 30S ribosomal protein S17

Chain 2q:

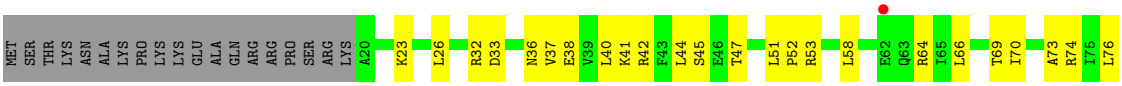


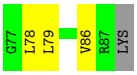
• Molecule 48: 30S ribosomal protein S18

Chain 1r:

• Molecule 48: 30S ribosomal protein S18

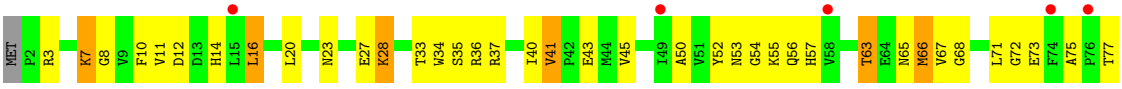
Chain 2r:

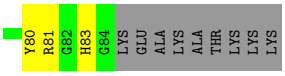




• Molecule 49: 30S ribosomal protein S19

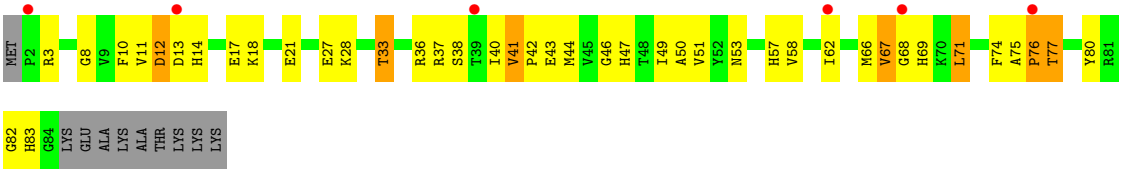
Chain 1s:



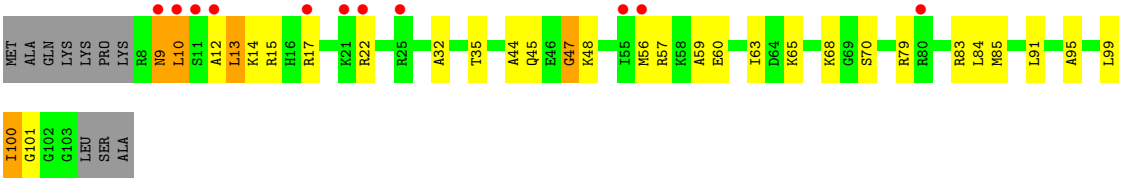


• Molecule 49: 30S ribosomal protein S19

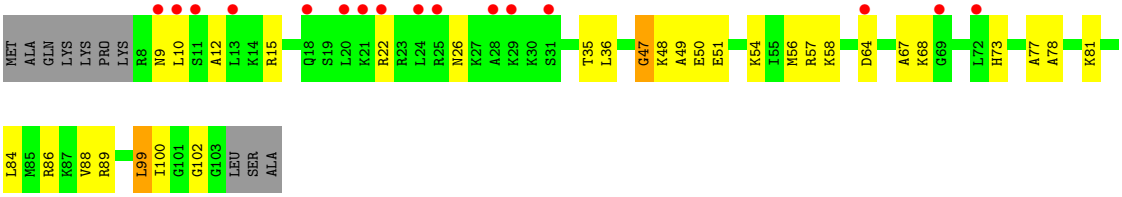
Chain 2s:



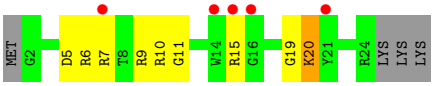
• Molecule 50: 30S ribosomal protein S20



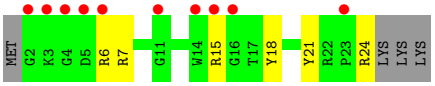
• Molecule 50: 30S ribosomal protein S20



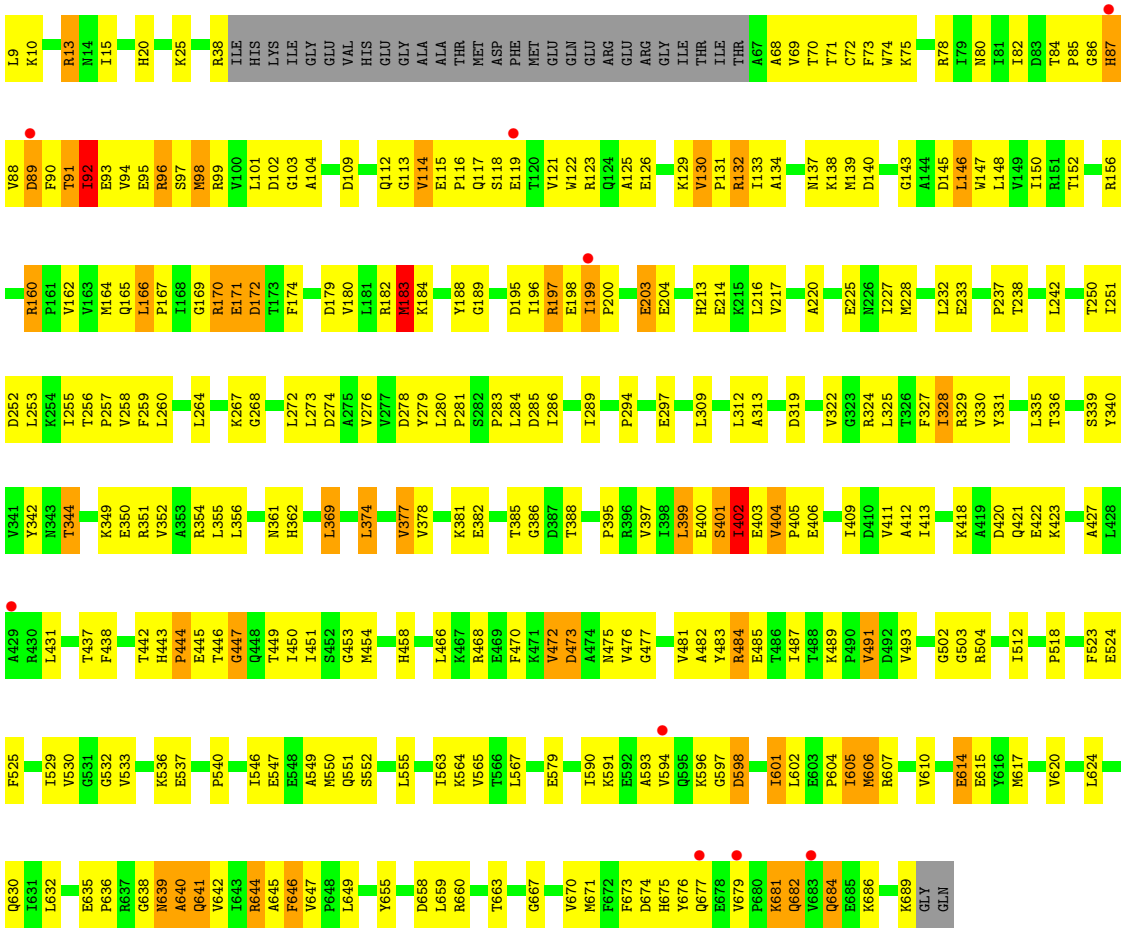
• Molecule 51: 30S ribosomal protein Thx



• Molecule 51: 30S ribosomal protein Thx

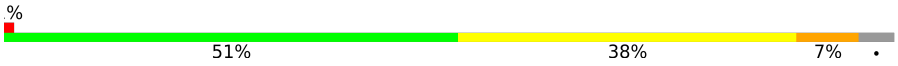


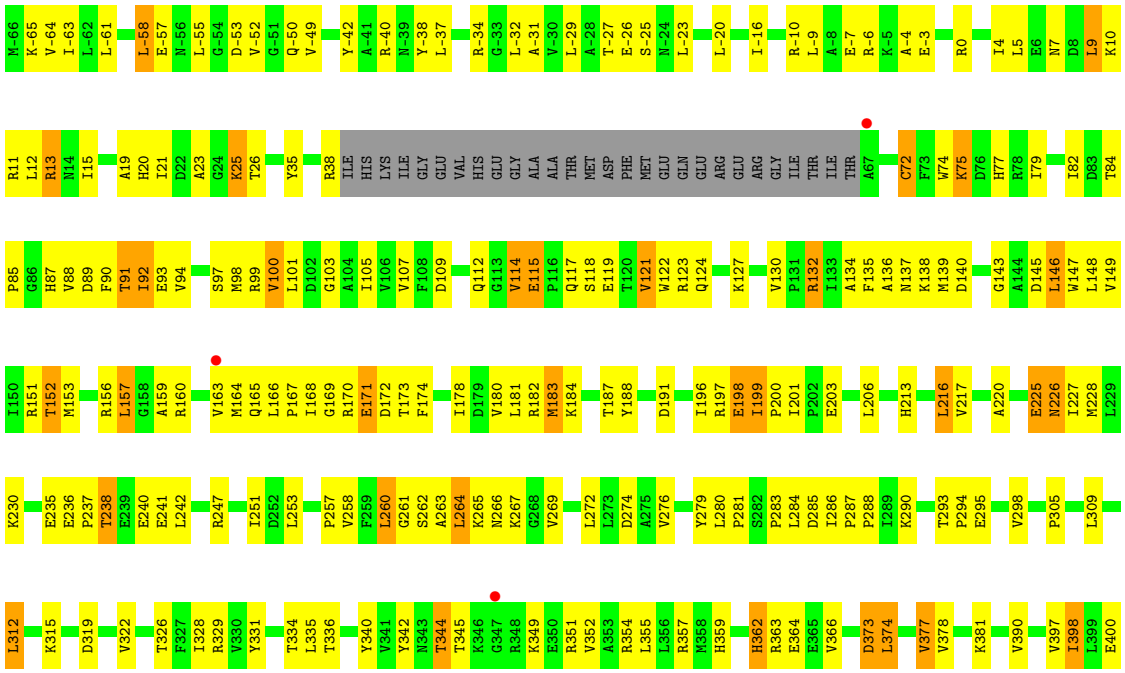
• Molecule 52: 50S ribosomal protein L9,Elongation factor G

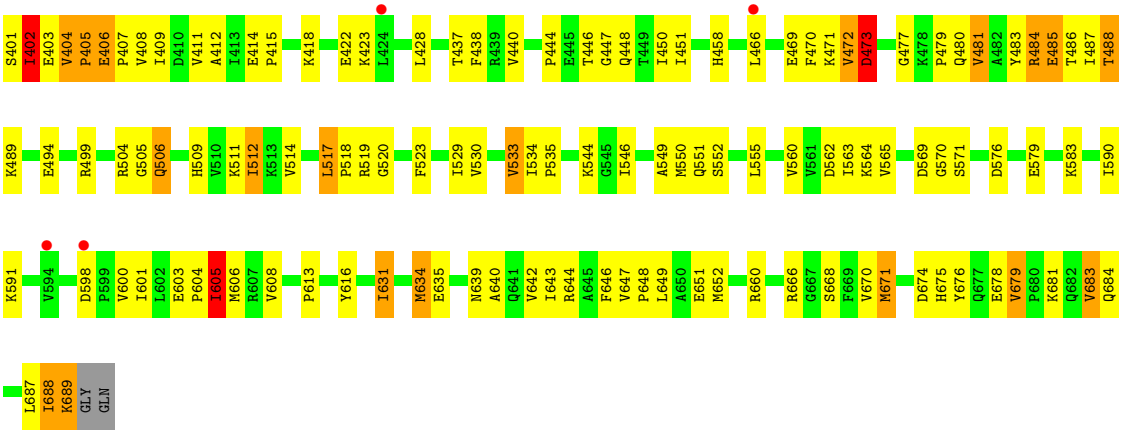


• Molecule 52: 50S ribosomal protein L9,Elongation factor G

Chain 2v:

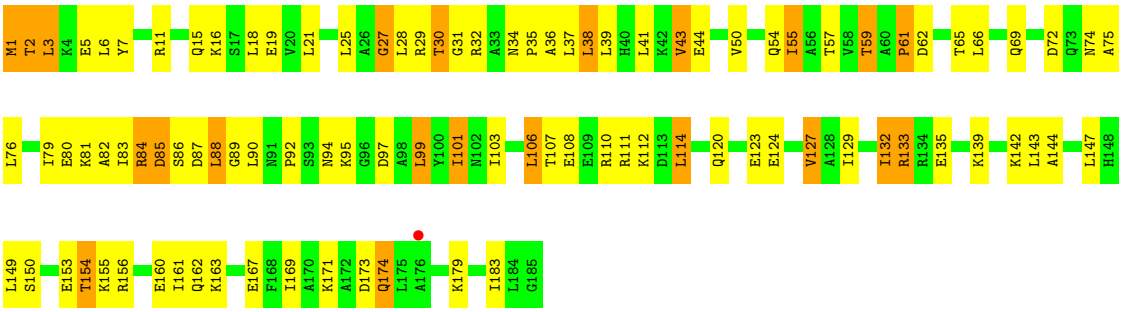






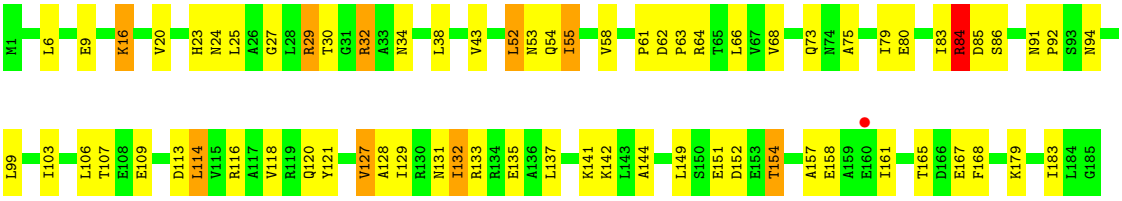
• Molecule 53: Ribosome-recycling factor

Chain 1w:



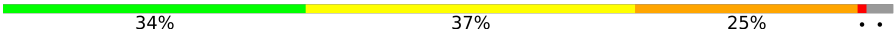
• Molecule 53: Ribosome-recycling factor

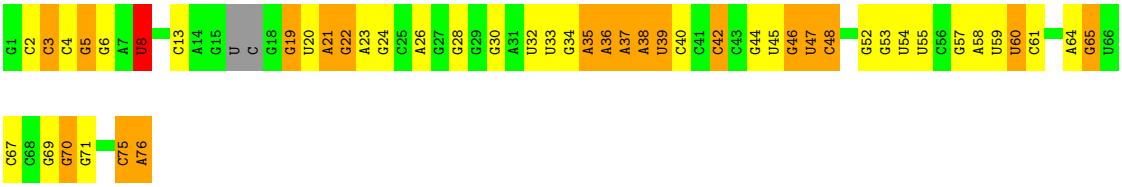
Chain 2w:



• Molecule 54: P-site and E-site tRNAs

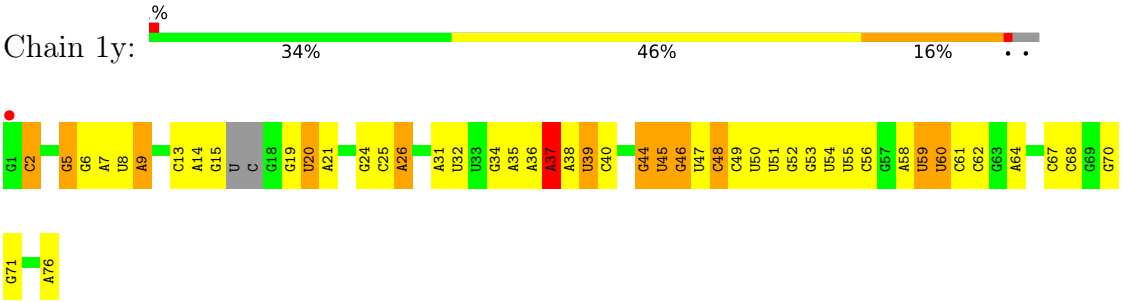
Chain 1x:





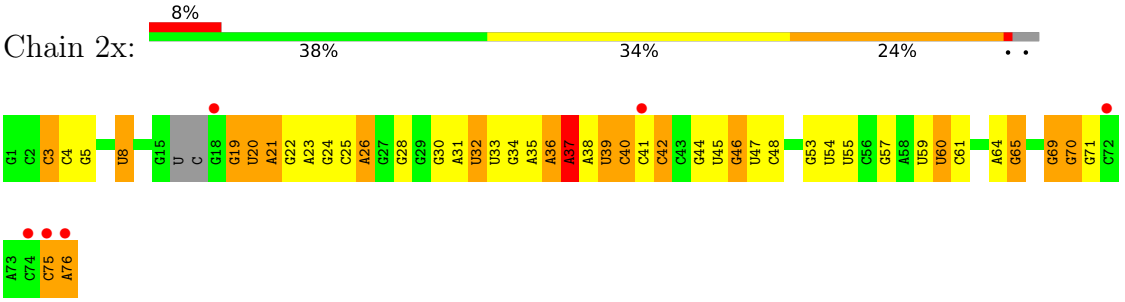
• Molecule 54: P-site and E-site tRNAs

Chain 1y:



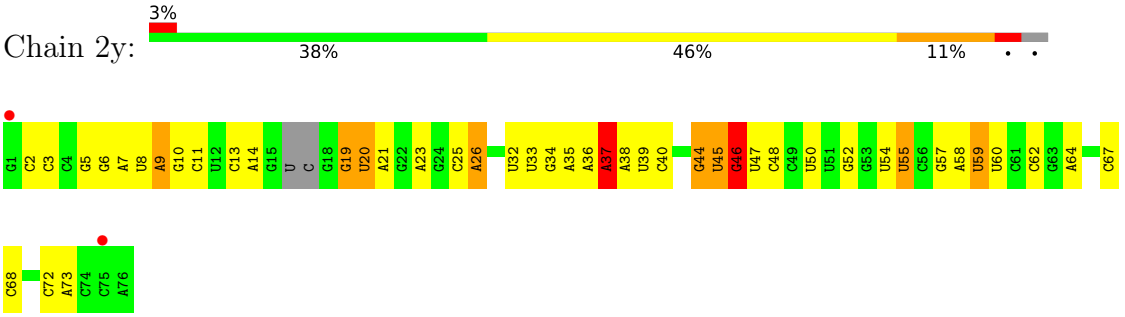
• Molecule 54: P-site and E-site tRNAs

Chain 2x:



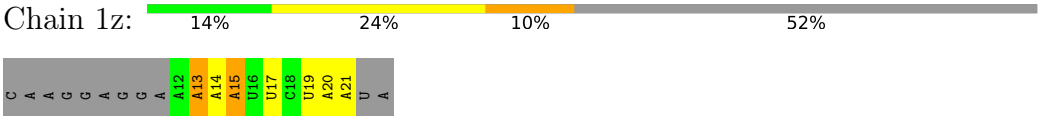
• Molecule 54: P-site and E-site tRNAs

Chain 2y:



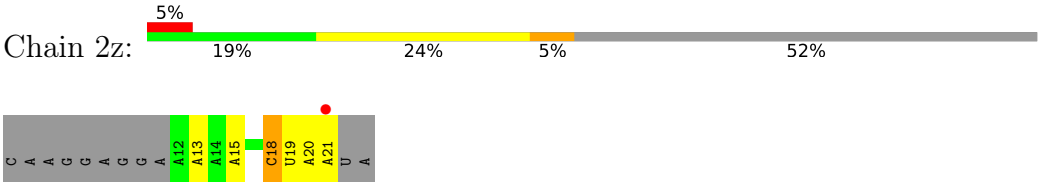
• Molecule 55: mRNA

Chain 1z:



• Molecule 55: mRNA

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	209.66Å 448.74Å 623.99Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.89 – 3.50 49.89 – 3.50	Depositor EDS
% Data completeness (in resolution range)	98.4 (49.89-3.50) 98.4 (49.89-3.50)	Depositor EDS
R_{merge}	0.33	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.09 (at 3.49Å)	Xtriage
Refinement program	PHENIX 1.13_2998	Depositor
R, R_{free}	0.244 , 0.294 0.245 , 0.294	Depositor DCC
R_{free} test set	36340 reflections (4.94%)	wwPDB-VP
Wilson B-factor (Å^2)	112.7	Xtriage
Anisotropy	0.257	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.26 , 75.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.36$, $< L^2 > = 0.19$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	305259	wwPDB-VP
Average B, all atoms (Å^2)	135.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.56% 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: K, 7MG, M2G, MIA, ZN, 2MG, PSU, 2MA, 0TD, 5MU, UR3, 5MC, MG, OMC, MA6, 4OC, GDP, SF4, 4SU, OMG, 2MU

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	1A	0.34	0/69010	0.50	2/107716 (0.0%)
1	2A	0.23	2/67294 (0.0%)	0.38	0/105038
2	1B	0.29	0/2882	0.44	0/4494
2	2B	0.17	0/2879	0.31	0/4487
3	1D	0.34	0/2186	0.56	0/2944
3	2D	0.26	0/2186	0.49	0/2944
4	1E	0.34	0/1592	0.55	0/2149
4	2E	0.22	0/1592	0.45	0/2149
5	1F	0.35	0/1619	0.52	0/2193
5	2F	0.22	0/1615	0.44	0/2188
6	1G	0.26	0/1476	0.44	0/1989
6	2G	0.17	0/1478	0.37	0/1992
7	1H	0.32	0/1356	0.48	0/1834
7	2H	0.19	0/1356	0.35	0/1834
8	1N	0.35	0/1144	0.56	0/1543
8	2N	0.19	0/1144	0.40	0/1543
9	1O	0.31	0/943	0.52	0/1269
9	2O	0.23	0/943	0.43	0/1269
10	1P	0.32	0/1152	0.58	0/1533
10	2P	0.22	0/1152	0.47	0/1533
11	1Q	0.36	0/1143	0.56	0/1527
11	2Q	0.21	0/1143	0.42	0/1527
12	1R	0.34	0/982	0.58	0/1312
12	2R	0.26	0/982	0.48	0/1312
13	1S	0.28	0/883	0.50	0/1176
13	2S	0.18	0/880	0.39	0/1172
14	1T	0.30	0/1105	0.53	0/1477
14	2T	0.22	0/1097	0.43	0/1468
15	1U	0.40	0/977	0.58	0/1301
15	2U	0.20	0/977	0.38	0/1301
16	1V	0.35	0/782	0.57	0/1049

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
16	2V	0.22	0/782	0.41	0/1049
17	1W	0.41	0/897	0.59	0/1205
17	2W	0.25	0/897	0.46	0/1205
18	1X	0.40	0/764	0.56	0/1025
18	2X	0.26	0/764	0.43	0/1025
19	1Y	0.36	0/819	0.57	0/1095
19	2Y	0.20	0/819	0.40	0/1095
20	1Z	0.32	0/1615	0.56	0/2197
20	2Z	0.20	0/1615	0.44	2/2197 (0.1%)
21	10	0.35	0/606	0.56	0/808
21	20	0.22	0/606	0.42	0/808
22	11	0.31	0/762	0.47	0/1014
22	21	0.36	1/762 (0.1%)	0.44	0/1014
23	12	0.35	0/590	0.55	0/781
23	22	0.20	0/590	0.36	0/781
24	13	0.38	0/474	0.57	0/635
24	23	0.38	0/469	0.57	0/630
25	14	0.23	0/565	0.54	0/761
25	24	0.20	0/545	0.44	0/737
26	15	0.71	1/469 (0.2%)	0.79	1/635 (0.2%)
26	25	0.26	0/469	0.48	0/635
27	16	0.35	0/460	0.54	0/613
27	26	0.21	0/456	0.41	0/608
28	17	0.43	0/426	0.62	0/561
28	27	0.31	0/426	0.60	0/561
29	18	0.41	0/525	0.59	0/691
29	28	0.26	0/525	0.42	0/691
30	19	0.32	0/310	0.53	0/407
30	29	0.22	0/310	0.46	0/407
31	1a	0.19	0/35769	0.33	3/55821 (0.0%)
31	2a	0.18	0/35886	0.32	0/56005
32	1b	0.20	0/1881	0.47	1/2542 (0.0%)
32	2b	0.17	0/1860	0.39	0/2518
33	1c	0.14	0/1572	0.32	0/2126
33	2c	0.16	0/1566	0.34	0/2119
34	1d	0.19	0/1685	0.41	0/2262
34	2d	0.18	0/1704	0.38	0/2284
35	1e	0.23	0/1145	0.43	0/1543
35	2e	0.21	0/1149	0.44	0/1548
36	1f	0.18	0/823	0.36	0/1115
36	2f	0.19	0/829	0.37	0/1123
37	1g	0.16	0/1250	0.36	0/1679
37	2g	0.16	0/1254	0.36	0/1683

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1h	0.19	0/1108	0.38	0/1494
38	2h	0.22	0/1108	0.43	0/1494
39	1i	0.19	0/1002	0.41	0/1346
39	2i	0.16	0/997	0.37	0/1343
40	1j	0.14	0/722	0.37	0/982
40	2j	0.14	0/727	0.36	0/988
41	1k	0.22	0/844	0.43	0/1145
41	2k	0.17	0/848	0.34	0/1149
42	1l	0.20	0/937	0.39	0/1260
42	2l	0.24	0/937	0.48	0/1260
43	1m	0.17	0/929	0.38	0/1250
43	2m	0.15	0/961	0.38	0/1291
44	1n	0.15	0/501	0.36	0/664
44	2n	0.17	0/501	0.41	0/664
45	1o	0.20	0/739	0.41	0/985
45	2o	0.17	0/739	0.35	0/985
46	1p	0.20	0/697	0.39	0/939
46	2p	0.21	0/693	0.40	0/935
47	1q	0.26	0/836	0.49	0/1117
47	2q	0.18	0/836	0.34	0/1117
48	1r	0.21	0/560	0.40	0/746
48	2r	0.18	0/560	0.36	0/746
49	1s	0.21	0/667	0.44	0/900
49	2s	0.17	0/661	0.44	0/893
50	1t	0.23	0/730	0.44	0/965
50	2t	0.21	0/729	0.42	0/965
51	1u	0.21	0/203	0.43	0/266
51	2u	0.16	0/203	0.39	0/266
52	1v	0.28	1/5765 (0.0%)	0.51	4/7809 (0.1%)
52	2v	0.23	1/5765 (0.0%)	0.43	1/7809 (0.0%)
53	1w	0.27	0/1497	0.48	0/2017
53	2w	0.24	0/1497	0.42	0/2017
54	1x	0.23	0/1602	0.37	0/2493
54	1y	0.23	0/1602	0.38	0/2493
54	2x	0.21	0/1602	0.32	0/2493
54	2y	0.22	1/1602 (0.1%)	0.36	0/2493
55	1z	0.19	0/237	0.31	0/366
55	2z	0.16	0/237	0.26	0/366
All	All	0.26	7/326021 (0.0%)	0.42	14/486013 (0.0%)

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	1v	199	ILE	C-N	13.27	1.49	1.33
26	15	27	PRO	CA-C	12.62	1.58	1.51
52	2v	287	PRO	CA-C	-8.79	1.47	1.51
1	2A	2426	A	O3'-P	-8.45	1.48	1.61
22	21	67	ILE	CA-CB	7.23	1.57	1.54
1	2A	2440	C	O3'-P	5.24	1.69	1.61
54	2y	8	4SU	O3'-P	5.02	1.61	1.56

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	1v	199	ILE	CA-C-N	13.96	133.85	120.03
52	1v	199	ILE	C-N-CA	13.96	133.85	120.03
26	15	27	PRO	O-C-N	9.99	125.91	121.31
52	2v	287	PRO	O-C-N	-7.06	118.06	121.31
31	1a	1020	U	C2'-C3'-O3'	-6.30	104.25	113.70
52	1v	639	ASN	CA-C-N	5.90	132.32	121.70
52	1v	639	ASN	C-N-CA	5.90	132.32	121.70
1	1A	1653	G	C2'-C3'-O3'	5.52	117.77	109.50
32	1b	168	THR	CB-CA-C	-5.36	102.64	110.95
20	2Z	160	GLY	CA-C-N	5.29	131.21	121.70
20	2Z	160	GLY	C-N-CA	5.29	131.21	121.70
31	1a	266	G	P-O3'-C3'	5.12	127.87	120.20
31	1a	266	G	C2'-C3'-O3'	5.08	117.11	109.50
1	1A	1653	G	P-O3'-C3'	5.04	127.76	120.20

There are no chirality outliers.

There are no planarity outliers.

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	61852	0	31185	1219	0
1	2A	60322	0	30409	1049	0
2	1B	2577	0	1305	40	0
2	2B	2575	0	1303	41	0
3	1D	2136	0	2217	98	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	2D	2136	0	2218	98	0
4	1E	1559	0	1616	53	0
4	2E	1559	0	1618	57	0
5	1F	1584	0	1625	79	0
5	2F	1580	0	1619	74	0
6	1G	1451	0	1496	64	0
6	2G	1453	0	1496	44	0
7	1H	1330	0	1407	46	0
7	2H	1330	0	1407	36	0
8	1N	1117	0	1183	39	0
8	2N	1117	0	1184	33	0
9	1O	933	0	996	50	0
9	2O	933	0	996	33	0
10	1P	1135	0	1212	56	0
10	2P	1135	0	1212	48	0
11	1Q	1122	0	1179	60	0
11	2Q	1122	0	1179	51	0
12	1R	968	0	1033	43	0
12	2R	968	0	1033	49	0
13	1S	873	0	927	25	0
13	2S	870	0	923	28	0
14	1T	1091	0	1151	38	0
14	2T	1083	0	1136	40	0
15	1U	959	0	1019	32	0
15	2U	959	0	1019	47	0
16	1V	771	0	830	24	0
16	2V	771	0	830	22	0
17	1W	886	0	940	32	0
17	2W	886	0	940	39	0
18	1X	750	0	814	38	0
18	2X	750	0	814	23	0
19	1Y	806	0	881	27	0
19	2Y	806	0	881	33	0
20	1Z	1582	0	1571	72	0
20	2Z	1582	0	1571	52	0
21	10	598	0	612	30	0
21	20	598	0	614	18	0
22	11	755	0	825	21	0
22	21	755	0	826	28	0
23	12	588	0	643	27	0
23	22	588	0	643	16	0
24	13	469	0	518	16	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	23	464	0	514	19	0
25	14	552	0	533	28	0
25	24	532	0	503	20	0
26	15	455	0	465	18	0
26	25	455	0	465	17	0
27	16	453	0	473	22	0
27	26	449	0	469	10	0
28	17	418	0	467	21	0
28	27	418	0	467	18	0
29	18	517	0	582	37	0
29	28	517	0	582	16	0
30	19	307	0	335	5	0
30	29	307	0	335	10	0
31	1a	32224	0	16272	580	0
31	2a	32327	0	16325	568	0
32	1b	1846	0	1867	73	0
32	2b	1825	0	1828	65	0
33	1c	1548	0	1535	29	0
33	2c	1542	0	1516	40	0
34	1d	1655	0	1671	48	0
34	2d	1674	0	1714	45	0
35	1e	1129	0	1184	41	0
35	2e	1133	0	1191	39	0
36	1f	810	0	804	26	0
36	2f	816	0	808	23	0
37	1g	1231	0	1238	37	0
37	2g	1235	0	1249	26	0
38	1h	1088	0	1126	41	0
38	2h	1088	0	1125	43	0
39	1i	983	0	986	30	0
39	2i	978	0	965	39	0
40	1j	709	0	650	22	0
40	2j	714	0	672	30	0
41	1k	829	0	825	23	0
41	2k	833	0	836	24	0
42	1l	932	0	981	34	0
42	2l	932	0	981	36	0
43	1m	919	0	951	32	0
43	2m	950	0	988	39	0
44	1n	492	0	528	21	0
44	2n	492	0	529	24	0
45	1o	728	0	760	19	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
45	2o	728	0	760	20	0
46	1p	681	0	697	19	0
46	2p	677	0	686	21	0
47	1q	823	0	891	33	0
47	2q	823	0	891	32	0
48	1r	555	0	618	22	0
48	2r	555	0	618	16	0
49	1s	652	0	662	46	0
49	2s	646	0	644	37	0
50	1t	728	0	798	23	0
50	2t	727	0	796	20	0
51	1u	199	0	208	7	0
51	2u	199	0	208	6	0
52	1v	5664	0	5748	215	0
52	2v	5664	0	5749	216	0
53	1w	1478	0	1526	72	0
53	2w	1478	0	1526	50	0
54	1x	1581	0	804	33	0
54	1y	1581	0	805	44	0
54	2x	1581	0	804	27	0
54	2y	1581	0	804	23	0
55	1z	212	0	108	8	0
55	2z	212	0	108	1	0
56	10	4	0	0	0	0
56	11	1	0	0	0	0
56	12	1	0	0	0	0
56	13	1	0	0	0	0
56	15	2	0	0	0	0
56	16	1	0	0	0	0
56	17	3	0	0	0	0
56	18	3	0	0	0	0
56	19	1	0	0	0	0
56	1A	1063	0	0	0	0
56	1B	26	0	0	0	0
56	1D	8	0	0	0	0
56	1E	8	0	0	0	0
56	1F	1	0	0	0	0
56	1H	2	0	0	0	0
56	1N	1	0	0	0	0
56	1O	5	0	0	0	0
56	1P	5	0	0	0	0
56	1Q	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	1R	3	0	0	0	0
56	1S	2	0	0	0	0
56	1T	5	0	0	0	0
56	1U	3	0	0	0	0
56	1V	1	0	0	0	0
56	1W	2	0	0	0	0
56	1Y	1	0	0	0	0
56	1Z	5	0	0	0	0
56	1a	319	0	0	0	0
56	1b	9	0	0	1	0
56	1d	4	0	0	0	0
56	1e	2	0	0	0	0
56	1g	2	0	0	0	0
56	1i	1	0	0	0	0
56	1l	1	0	0	0	0
56	1m	2	0	0	0	0
56	1n	2	0	0	0	0
56	1o	1	0	0	0	0
56	1p	1	0	0	0	0
56	1q	1	0	0	0	0
56	1s	3	0	0	0	0
56	1t	1	0	0	0	0
56	1u	1	0	0	0	0
56	1v	3	0	0	0	0
56	1x	2	0	0	0	0
56	1y	6	0	0	0	0
56	1z	1	0	0	0	0
56	20	6	0	0	0	0
56	21	1	0	0	0	0
56	23	3	0	0	0	0
56	24	1	0	0	0	0
56	25	1	0	0	0	0
56	26	2	0	0	0	0
56	27	3	0	0	0	0
56	28	6	0	0	0	0
56	29	2	0	0	0	0
56	2A	852	0	0	1	0
56	2B	32	0	0	0	0
56	2D	6	0	0	0	0
56	2E	5	0	0	0	0
56	2F	4	0	0	0	0
56	2N	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2O	1	0	0	0	0
56	2P	3	0	0	0	0
56	2Q	6	0	0	0	0
56	2S	1	0	0	0	0
56	2T	2	0	0	0	0
56	2V	1	0	0	0	0
56	2X	1	0	0	0	0
56	2Y	2	0	0	0	0
56	2Z	4	0	0	0	0
56	2a	321	0	0	0	0
56	2b	3	0	0	0	0
56	2c	1	0	0	0	0
56	2d	3	0	0	0	0
56	2e	2	0	0	0	0
56	2f	4	0	0	0	0
56	2g	6	0	0	0	0
56	2h	5	0	0	0	0
56	2i	4	0	0	0	0
56	2k	2	0	0	0	0
56	2l	6	0	0	0	0
56	2m	3	0	0	0	0
56	2o	1	0	0	0	0
56	2p	3	0	0	0	0
56	2q	4	0	0	0	0
56	2r	2	0	0	0	0
56	2s	3	0	0	0	0
56	2t	1	0	0	0	0
56	2u	3	0	0	0	0
56	2v	3	0	0	0	0
56	2w	2	0	0	0	0
56	2x	8	0	0	0	0
56	2y	10	0	0	0	0
56	2z	3	0	0	0	0
57	14	1	0	0	0	0
57	15	1	0	0	0	0
57	16	1	0	0	0	0
57	19	1	0	0	0	0
57	1Y	1	0	0	0	0
57	1n	1	0	0	0	0
57	24	1	0	0	0	0
57	25	1	0	0	0	0
57	26	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	29	1	0	0	0	0
57	2Y	1	0	0	0	0
57	2n	1	0	0	0	0
58	1d	8	0	0	2	0
58	2d	8	0	0	1	0
59	1v	28	0	12	3	0
59	2v	28	0	12	2	0
60	2A	1	0	0	0	0
All	All	305259	0	207834	6490	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 13.

All (6490) 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)
12:2R:101:ALA:HB2	26:25:44:THR:CG2	1.60	1.29
12:2R:101:ALA:HB2	26:25:44:THR:HG23	1.31	1.11
6:1G:161:THR:HG23	6:1G:163:ALA:H	1.13	1.08
1:2A:2138:C:N4	1:2A:2153:G:H1	1.52	1.06
12:2R:101:ALA:HB2	26:25:44:THR:HG21	1.31	1.04
52:1v:184:LYS:HD2	52:1v:198:GLU:OE2	1.57	1.04
31:2a:1025:U:H3	31:2a:1036:G:H1	1.01	1.00
31:2a:997:U:H3	31:2a:1044:A:H61	1.10	0.99
6:1G:161:THR:CG2	6:1G:163:ALA:H	1.75	0.98
31:1a:929:G:H1	31:1a:1388:C:N4	1.61	0.98
31:2a:1312:G:H1	31:2a:1325:C:H42	1.03	0.98
12:2R:101:ALA:CB	26:25:44:THR:HG21	1.93	0.98
1:2A:1187:G:C8	1:2A:1187:G:H5"	2.00	0.97
25:24:58:ARG:HD2	49:2s:68:GLY:H	1.28	0.96
22:11:3:LYS:HB2	22:11:61:ARG:HH12	1.31	0.95
54:2y:52:G:H1	54:2y:62:C:H42	1.07	0.95
6:1G:131:TYR:HE2	6:1G:133:LEU:HD23	1.29	0.95
1:1A:1054:A:H61	1:1A:1105:U:H3	1.06	0.94
1:1A:1053:C:H42	1:1A:1106:G:H1	1.13	0.93
54:1y:53:G:H1	54:1y:61:C:H42	1.08	0.93
31:2a:997:U:H3	31:2a:1044:A:N6	1.66	0.93
52:1v:199:ILE:HB	52:1v:200:PRO:HD2	1.47	0.93
31:1a:1077:G:H22	31:1a:1079:G:H3'	1.31	0.92
54:1y:52:G:H1	54:1y:62:C:N4	1.67	0.92
31:1a:1051:C:H42	31:1a:1207:2MG:HN1	1.10	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:1358:U:H5”	44:1n:34:TYR:HD1	1.35	0.92
31:1a:1030:C:H42	31:1a:1031:G:H1	1.16	0.92
54:1y:52:G:H1	54:1y:62:C:H42	0.93	0.92
54:1x:6:G:H1	54:1x:67:C:H42	1.09	0.91
31:1a:1077:G:N2	31:1a:1079:G:H3’	1.86	0.90
1:1A:1054:A:N6	1:1A:1105:U:H3	1.70	0.90
24:23:16:PRO:HG2	24:23:19:GLN:HE21	1.36	0.90
1:2A:1411:C:H42	1:2A:1591:G:H1	1.20	0.89
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.35	0.89
52:2v:444:PRO:HG2	52:2v:552:SER:HB2	1.55	0.88
10:1P:38:GLN:HE21	10:1P:45:LEU:HA	1.39	0.88
31:2a:1030:C:H42	31:2a:1031:G:H1	1.20	0.87
47:1q:92:ARG:HG2	47:1q:92:ARG:HH11	1.37	0.87
53:2w:84:ARG:HH11	53:2w:84:ARG:HB2	1.39	0.87
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.57	0.87
1:2A:2127:G:C6	1:2A:2161:C:N4	2.44	0.86
9:2O:35:VAL:HG11	9:2O:103:ALA:HB3	1.58	0.86
1:1A:457:A:C8	1:1A:459:U:C2	2.64	0.86
1:2A:2584:U:H2’	1:2A:2585:U:H2’	1.57	0.86
52:2v:603:GLU:HB2	52:2v:679:VAL:HG11	1.58	0.86
1:1A:529:A:H62	1:1A:2041:U:H3	1.19	0.85
31:2a:1058:G:H1	31:2a:1199:U:H3	1.22	0.85
10:2P:100:LEU:HD12	10:2P:112:LEU:HD11	1.56	0.85
1:1A:1051:G:H4’	1:1A:2752:C:O2’	1.77	0.85
1:2A:2138:C:N3	1:2A:2153:G:N2	2.24	0.85
6:1G:131:TYR:O	6:1G:159:VAL:HG12	1.78	0.84
32:1b:185:ILE:HG22	32:1b:199:TYR:HB2	1.57	0.84
1:2A:392:C:H5”	1:2A:409:C:H5”	1.59	0.84
29:28:33:ASN:HA	29:28:36:LYS:HG3	1.59	0.84
1:1A:1039:G:H1	1:1A:1116:C:H42	1.21	0.84
31:2a:1312:G:H1	31:2a:1325:C:N4	1.76	0.84
1:2A:2637:U:H5”	4:2E:82:ARG:HH12	1.40	0.84
1:2A:855:G:H1	1:2A:922:U:H3	1.24	0.84
52:1v:199:ILE:HD12	52:1v:199:ILE:O	1.78	0.83
31:2a:922:G:H1	31:2a:1395:C:H42	1.23	0.83
31:1a:929:G:H1	31:1a:1388:C:H42	0.89	0.83
42:1l:41:ARG:HD2	53:1w:86:SER:HA	1.58	0.83
54:2y:52:G:H1	54:2y:62:C:N4	1.77	0.83
52:1v:99:ARG:HE	52:1v:402:ILE:HG12	1.44	0.83
31:2a:148:G:H1	31:2a:174:C:H42	1.24	0.83
3:1D:72:LYS:HB3	3:1D:75:ILE:HD12	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:20:C:H42	2:2B:63:G:H1	1.21	0.82
52:2v:601:ILE:HG23	52:2v:684:GLN:HB2	1.61	0.82
31:2a:1224:G:H1	31:2a:1363:C:H42	1.26	0.82
54:1y:15:G:H22	54:1y:48:C:H42	1.28	0.82
1:1A:2102:U:H3	1:1A:2187:G:H1	1.28	0.82
54:1y:19:G:N2	54:1y:56:C:N3	2.26	0.82
1:2A:2127:G:C2	1:2A:2161:C:N3	2.48	0.82
52:2v:87:HIS:HB3	52:2v:90:PHE:HB3	1.58	0.82
52:2v:199:ILE:HB	52:2v:200:PRO:HD2	1.60	0.82
1:2A:2287:A:H62	1:2A:2344:U:H3	1.27	0.82
24:23:16:PRO:HD2	24:23:19:GLN:NE2	1.95	0.82
31:1a:78:G:C6	31:1a:91:C:N4	2.47	0.82
53:2w:84:ARG:HB2	53:2w:84:ARG:NH1	1.95	0.82
19:1Y:92:ASN:HB3	19:1Y:94:LYS:H	1.46	0.81
35:1e:122:GLU:OE1	35:1e:126:ARG:HG2	1.80	0.81
31:2a:1165:C:H42	31:2a:1171:G:H1	1.28	0.81
31:1a:1358:U:H5"	44:1n:34:TYR:CD1	2.15	0.81
31:1a:984:C:H42	31:1a:1221:G:H1	1.28	0.81
34:2d:18:LYS:NZ	34:2d:31:CYS:SG	2.54	0.81
1:2A:857:C:H4'	21:20:23:VAL:HG21	1.61	0.80
1:1A:2123:G:H1	1:1A:2175:C:H42	1.28	0.80
23:22:10:LEU:HB3	23:22:14:ARG:HH12	1.46	0.80
52:2v:168:ILE:HD11	52:2v:178:ILE:HG13	1.63	0.80
1:1A:1218:C:H42	1:1A:1231:G:H1	1.27	0.80
1:2A:2127:G:N1	1:2A:2161:C:C4	2.50	0.80
1:1A:880:G:H2'	1:1A:881:G:H8	1.47	0.80
25:14:16:CYS:SG	25:14:17:GLY:N	2.55	0.79
31:1a:1145:C:H4'	31:1a:1146:A:H5'	1.63	0.79
46:1p:51:VAL:HG12	46:1p:53:VAL:H	1.47	0.79
1:2A:2138:C:H42	1:2A:2153:G:H1	0.82	0.79
46:1p:22:THR:HA	46:1p:33:ILE:HG12	1.64	0.79
42:2l:73:GLU:H	42:2l:110:VAL:HG21	1.47	0.79
31:1a:953:G:N7	43:1m:104:ARG:NH2	2.28	0.79
31:2a:559:A:H4'	31:2a:560:U:H3'	1.65	0.79
35:2e:50:GLU:HB2	35:2e:53:LEU:HD13	1.63	0.79
4:1E:103:ASP:HB2	4:1E:168:MET:HB3	1.65	0.79
1:2A:188:G:H5'	22:21:14:VAL:HG21	1.65	0.78
54:1x:6:G:H1	54:1x:67:C:N4	1.81	0.78
7:1H:18:GLU:HG2	7:1H:25:LYS:HB3	1.66	0.78
10:1P:60:MET:HA	29:18:13:ARG:HH12	1.47	0.78
6:1G:41:GLN:HA	6:1G:155:MET:HA	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1O:107:ARG:HG3	9:1O:112:MET:HE1	1.66	0.78
1:1A:2096:U:H3	1:1A:2193:G:H1	1.30	0.78
1:2A:1963:U:H3	53:2w:127:VAL:HG22	1.49	0.78
11:2Q:11:LYS:HB3	11:2Q:87:LYS:HZ2	1.48	0.77
1:1A:1051:G:H5'	1:1A:2752:C:H1'	1.65	0.77
52:1v:404:VAL:HG13	52:1v:406:GLU:HB2	1.66	0.77
31:2a:1254:C:H42	31:2a:1283:G:H1	1.29	0.77
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.66	0.77
53:1w:144:ALA:HA	53:1w:149:LEU:HD12	1.66	0.77
32:2b:189:ASP:OD1	32:2b:189:ASP:N	2.16	0.77
1:1A:2680:C:H5'	4:1E:189:PRO:HA	1.67	0.77
6:1G:161:THR:HG23	6:1G:163:ALA:N	1.96	0.77
7:1H:25:LYS:HG2	7:1H:27:LYS:HE2	1.66	0.77
1:2A:1434:A:H61	1:2A:1558:A:H62	1.33	0.77
1:2A:1912:A:H62	1:2A:1917:PSU:HN3	1.32	0.77
52:2v:601:ILE:HD12	52:2v:684:GLN:HB3	1.66	0.77
14:1T:16:ARG:HE	14:1T:19:LEU:HD11	1.50	0.77
31:1a:1063:C:H42	31:1a:1193:G:H1	1.28	0.76
1:2A:2327:A:H5'	20:2Z:201:LYS:HE3	1.67	0.76
3:2D:80:ALA:HB3	3:2D:94:LEU:HB3	1.66	0.76
1:1A:1053:C:N4	1:1A:1106:G:H1	1.83	0.76
31:1a:1226:C:H4'	49:1s:80:TYR:OH	1.85	0.76
54:1y:53:G:H1	54:1y:61:C:N4	1.82	0.76
1:2A:2432:A:N7	22:21:33:LYS:HD2	2.00	0.76
31:1a:1051:C:N4	31:1a:1207:2MG:HN1	1.82	0.76
6:1G:131:TYR:CE2	6:1G:133:LEU:HD23	2.18	0.76
31:1a:1286:A:H2'	31:1a:1287:A:H4'	1.68	0.76
52:1v:-62:LEU:HD23	52:1v:-58:LEU:HD23	1.68	0.76
31:1a:1226:C:H4'	49:1s:80:TYR:CZ	2.21	0.76
54:1y:52:G:N2	54:1y:62:C:N3	2.32	0.76
38:2h:2:LEU:HD11	38:2h:8:ASP:OD1	1.85	0.76
54:2x:75:C:H5"	54:2x:76:A:H3'	1.68	0.76
53:1w:27:GLY:HA2	53:1w:37:LEU:HA	1.66	0.76
1:2A:483:A:C5	19:2Y:60:PHE:HZ	2.03	0.76
49:1s:11:VAL:HG11	49:1s:16:LEU:HD23	1.67	0.76
52:2v:169:GLY:HA3	52:2v:174:PHE:HA	1.68	0.76
34:2d:57:ARG:HB3	34:2d:206:PHE:HB2	1.68	0.75
31:1a:1030:C:N3	31:1a:1031:G:N2	2.34	0.75
1:2A:2127:G:N2	1:2A:2161:C:C2	2.55	0.75
2:2B:7:G:H21	13:2S:38:GLN:HE22	1.32	0.75
31:2a:1316:G:H5"	44:2n:17:LYS:HD3	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:2v:-64:VAL:HG12	52:2v:-29:LEU:HA	1.69	0.75
52:1v:636:PRO:HA	52:1v:641:GLN:HA	1.68	0.75
1:1A:457:A:C8	1:1A:459:U:N3	2.54	0.75
31:1a:390:C:H2'	31:1a:391:G:H8	1.52	0.75
1:1A:1050:A:C2	1:1A:2751:G:C5	2.75	0.75
31:1a:677:U:H3	31:1a:713:G:H22	1.35	0.74
8:2N:58:ASP:OD1	8:2N:58:ASP:N	2.20	0.74
16:1V:1:MET:HE1	16:1V:40:LEU:HB3	1.68	0.74
49:1s:27:GLU:HB2	49:1s:28:LYS:HD3	1.68	0.74
1:2A:1818:U:OP2	3:2D:157:ARG:NH1	2.20	0.74
31:2a:1028:C:N3	31:2a:1033:G:O6	2.20	0.74
2:2B:66:A:H61	2:2B:109:C:H5'	1.51	0.74
25:24:40:HIS:HB3	25:24:43:TYR:HB2	1.67	0.74
34:2d:175:SER:HB3	34:2d:184:LYS:HB3	1.68	0.74
38:2h:4:ASP:OD2	38:2h:85:ARG:NH1	2.20	0.74
31:1a:1328:C:OP2	51:1u:7:ARG:NH1	2.21	0.74
31:1a:1373:G:H5"	37:1g:36:LYS:HE2	1.69	0.74
38:1h:10:LEU:HD22	38:1h:83:ILE:HD11	1.69	0.74
31:2a:254:G:H2'	31:2a:255:G:H8	1.53	0.74
41:2k:19:ALA:HB3	41:2k:82:VAL:HA	1.68	0.74
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.23	0.74
31:1a:601:C:H2'	31:1a:602:A:H8	1.53	0.74
52:1v:119:GLU:HB2	52:1v:156:ARG:HH21	1.53	0.74
1:1A:1342:A:C6	1:1A:1397:U:C5	2.76	0.74
12:1R:67:LEU:HD13	12:1R:76:VAL:HG21	1.68	0.74
16:2V:74:LYS:HB2	16:2V:83:ARG:HB2	1.68	0.74
31:1a:456:C:H42	31:1a:475:G:H1	1.35	0.74
33:2c:189:ALA:HB3	33:2c:196:LEU:HB2	1.70	0.74
32:1b:53:ARG:NH2	32:1b:198:ASP:O	2.20	0.74
52:1v:-37:LEU:HB3	52:1v:-31:ALA:HB3	1.69	0.74
52:1v:146:LEU:HD12	52:1v:167:PRO:HD3	1.68	0.74
1:2A:2127:G:C2	1:2A:2161:C:C4	2.76	0.74
54:1y:15:G:N2	54:1y:48:C:H42	1.86	0.73
1:2A:987:G:O2'	1:2A:1000:A:N3	2.20	0.73
1:1A:2292:C:OP1	13:1S:17:ARG:NH2	2.20	0.73
10:1P:52:GLU:O	10:1P:54:GLY:N	2.20	0.73
31:1a:998:G:H1	31:1a:1043:C:H42	1.36	0.73
31:1a:1376:U:H2'	31:1a:1377:A:H8	1.53	0.73
3:2D:71:ASP:N	3:2D:71:ASP:OD1	2.19	0.73
1:1A:897:C:N3	1:1A:898:C:N4	2.35	0.73
9:1O:68:GLU:HG2	9:1O:68:GLU:O	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:483:A:C5	19:2Y:60:PHE:CZ	2.76	0.73
1:2A:994:C:H3'	15:2U:54:LYS:HE3	1.70	0.73
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.03	0.73
19:1Y:2:ARG:HH12	19:1Y:5:MET:H	1.37	0.73
31:1a:1375:A:O2'	37:1g:102:ARG:NH2	2.22	0.73
54:1x:8:4SU:O2	54:1x:13:C:N4	2.22	0.73
1:2A:652(B):A:H61	1:2A:655:A:H1'	1.50	0.73
31:2a:583:A:O2'	47:2q:91:ARG:NH1	2.22	0.73
22:21:91:LYS:O	22:21:95:LEU:HD22	1.88	0.73
52:2v:409:ILE:HG13	52:2v:480:GLN:HA	1.71	0.73
37:1g:86:GLN:NE2	54:1y:31:A:O2'	2.22	0.73
49:1s:36:ARG:NH2	49:1s:72:GLY:O	2.21	0.73
52:1v:606:MET:HE3	52:1v:649:LEU:HD22	1.69	0.73
20:1Z:19:ARG:NH1	20:1Z:84:GLU:O	2.22	0.73
23:12:64:LEU:HD11	23:12:68:ARG:HE	1.54	0.73
54:1x:3:C:H42	54:1x:70:G:H1	1.36	0.73
1:2A:1187:G:H5"	1:2A:1187:G:H8	1.53	0.73
31:2a:1027:C:N4	31:2a:1036:G:O6	2.22	0.73
1:1A:1920:OMC:HM22	1:1A:1921:G:H5'	1.70	0.73
53:1w:76:LEU:HD21	53:1w:94:ASN:HB2	1.68	0.73
4:1E:134:ILE:HA	4:1E:137:HIS:HD2	1.53	0.73
18:1X:43:VAL:HG21	18:1X:81:VAL:HG11	1.68	0.73
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.22	0.72
8:1N:128:HIS:O	8:1N:131:GLN:NE2	2.22	0.72
32:1b:54:THR:HG21	32:1b:201:ILE:HD11	1.70	0.72
52:1v:405:PRO:HD2	52:1v:406:GLU:HG2	1.71	0.72
33:2c:9:GLY:HA3	44:2n:49:HIS:HA	1.71	0.72
7:1H:98:LEU:HD13	7:1H:125:VAL:HG23	1.70	0.72
39:1i:7:THR:O	39:1i:83:ARG:NH1	2.22	0.72
40:1j:54:PHE:O	40:1j:56:HIS:N	2.21	0.72
31:2a:826:C:H4'	38:2h:12:ARG:HG2	1.71	0.72
2:1B:11:C:OP2	2:1B:12:C:N4	2.18	0.72
42:1l:32:PHE:HB3	42:1l:84:LEU:HD11	1.72	0.72
37:1g:37:ASN:HD21	39:1i:40:LEU:HA	1.55	0.72
54:1x:28:G:H1	54:1x:42:C:H42	1.38	0.72
11:1Q:54:MET:HG2	11:1Q:117:ALA:HB1	1.70	0.72
11:1Q:60:ARG:CZ	20:1Z:180:VAL:HA	2.20	0.72
52:1v:189:GLY:HA3	52:1v:195:ASP:HB3	1.70	0.72
55:1z:13:A:N3	55:1z:13:A:H2'	2.03	0.72
35:2e:78:HIS:HE1	35:2e:143:ARG:H	1.34	0.72
52:1v:82:ILE:HD12	52:1v:101:LEU:HD23	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:2W:16:LYS:HA	17:2W:19:LEU:HD22	1.72	0.72
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.23	0.71
20:1Z:24:LEU:HB2	20:1Z:41:LEU:HD23	1.71	0.71
52:1v:412:ALA:HA	52:1v:450:ILE:HA	1.70	0.71
1:2A:2136:C:N3	1:2A:2155:G:N2	2.37	0.71
31:2a:659:U:OP1	45:2o:9:GLN:NE2	2.23	0.71
31:2a:936:C:H42	31:2a:1379:G:H1	1.38	0.71
41:1k:33:THR:HA	41:1k:39:PRO:HA	1.71	0.71
53:1w:88:LEU:HD13	53:1w:88:LEU:H	1.55	0.71
1:2A:1153:C:OP1	15:2U:92:ARG:NH2	2.23	0.71
11:2Q:37:LEU:HD21	11:2Q:130:LYS:HB2	1.73	0.71
1:2A:568:U:H6	1:2A:568:U:C5'	2.03	0.71
10:2P:93:GLY:H	10:2P:123:LEU:HD22	1.56	0.71
11:2Q:68:ILE:HG22	11:2Q:101:ARG:HE	1.55	0.71
31:2a:825:G:H21	38:2h:11:THR:HG21	1.55	0.71
31:1a:1266:G:N2	31:1a:1269:A:OP2	2.23	0.71
32:2b:95:GLN:HG3	32:2b:147:LYS:HG2	1.72	0.71
32:2b:185:ILE:HG22	32:2b:199:TYR:HB2	1.72	0.71
11:1Q:97:VAL:HG21	11:1Q:103:MET:HE3	1.71	0.71
29:18:27:THR:HG22	29:18:27:THR:O	1.89	0.71
1:2A:1651:G:H5'	12:2R:39:PRO:HG2	1.72	0.71
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.56	0.71
1:1A:2133:G:O2'	1:1A:2157:G:N2	2.22	0.71
1:1A:2811:G:O6	1:1A:2889:C:N4	2.20	0.71
41:1k:21:ILE:HD12	41:1k:84:VAL:HG22	1.72	0.71
4:2E:134:ILE:HA	4:2E:137:HIS:HD2	1.54	0.71
14:2T:106:SER:N	14:2T:109:GLU:OE1	2.21	0.71
1:1A:2422:A:O4'	54:1y:76:A:N6	2.23	0.71
54:1y:5:G:H1	54:1y:68:C:H42	1.37	0.71
29:28:6:THR:HG22	29:28:63:PRO:HD2	1.71	0.71
40:2j:27:ALA:HB2	40:2j:85:LEU:HD11	1.72	0.71
1:1A:1264:G:OP1	26:15:19:ARG:NH2	2.23	0.71
1:1A:1703:G:H2'	1:1A:1704:G:H8	1.55	0.71
20:1Z:80:ARG:HD3	20:1Z:82:ARG:HH11	1.54	0.71
1:2A:1022:G:O2'	1:2A:1025:G:N2	2.24	0.71
25:14:61:ARG:HD3	49:1s:68:GLY:HA2	1.73	0.71
1:2A:200:U:O2	1:2A:386:G:N2	2.24	0.71
1:1A:1342:A:N6	1:1A:1397:U:C4	2.59	0.70
1:1A:1831:G:H1	1:1A:1974:C:H42	1.39	0.70
29:18:27:THR:O	29:18:27:THR:CG2	2.38	0.70
31:1a:78:G:C2	31:1a:91:C:N3	2.59	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1m:82:MET:O	43:1m:93:ARG:NH2	2.24	0.70
17:2W:34:ASN:OD1	17:2W:37:ARG:NH2	2.24	0.70
37:2g:37:ASN:HD21	39:2i:40:LEU:HD23	1.54	0.70
41:2k:99:GLN:HG2	41:2k:105:VAL:HG21	1.73	0.70
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.24	0.70
25:14:28:LYS:HD2	25:14:31:ILE:HG12	1.72	0.70
1:1A:228:A:H8	1:1A:229:A:H5'	1.56	0.70
25:14:40:HIS:HB3	25:14:43:TYR:HB2	1.74	0.70
52:1v:443:HIS:ND1	52:1v:445:GLU:O	2.20	0.70
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.25	0.70
26:25:56:LYS:NZ	26:25:58:LEU:O	2.25	0.70
31:1a:377:G:H2'	31:1a:378:G:H8	1.54	0.70
52:1v:199:ILE:HD12	52:1v:199:ILE:C	2.17	0.70
1:2A:1518:U:H2'	1:2A:1519:G:O4'	1.92	0.70
1:2A:2296:U:OP2	13:2S:9:ARG:NH2	2.24	0.70
4:2E:2:LYS:HB2	4:2E:95:ILE:HD12	1.73	0.70
54:2x:28:G:H1	54:2x:42:C:H42	1.40	0.70
31:1a:986:A:N3	49:1s:52:TYR:OH	2.24	0.70
31:1a:1025:U:H3	31:1a:1036:G:H1	1.40	0.70
38:1h:86:ILE:HG21	38:1h:133:LEU:HD13	1.74	0.70
1:2A:2696:U:H2'	1:2A:2697:G:C8	2.27	0.70
1:1A:272(G):C:H42	1:1A:363(C):G:H1	1.40	0.70
1:1A:1007:C:H5"	8:1N:35:ARG:HH11	1.56	0.70
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.24	0.70
52:2v:466:LEU:HG	52:2v:472:VAL:HG21	1.73	0.70
16:1V:76:LYS:HB2	16:1V:81:TYR:HB3	1.73	0.70
45:1o:82:ILE:O	45:1o:86:GLY:N	2.24	0.70
31:1a:411:A:H62	31:1a:413:G:H21	1.40	0.70
31:1a:642:A:N3	38:1h:113:SER:OG	2.25	0.70
52:2v:130:VAL:O	52:2v:132:ARG:NH1	2.25	0.70
1:2A:994:C:OP1	15:2U:53:ARG:NH2	2.25	0.69
40:2j:35:SER:HB3	40:2j:73:ASP:H	1.57	0.69
5:1F:143:ALA:HB1	5:1F:148:LEU:HB2	1.74	0.69
1:2A:1568:G:H5"	3:2D:61:LEU:HD13	1.73	0.69
9:1O:35:VAL:HG11	9:1O:103:ALA:HB3	1.73	0.69
15:1U:17:ILE:HG13	15:1U:32:PHE:HE1	1.57	0.69
52:1v:227:ILE:HD13	52:1v:242:LEU:HD23	1.74	0.69
19:2Y:102:CYS:SG	19:2Y:103:GLY:N	2.65	0.69
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.27	0.69
4:1E:12:THR:HG22	4:1E:13:ARG:H	1.55	0.69
31:1a:1027:C:C2	31:1a:1034:G:N2	2.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1389:G:H2'	1:2A:1390:U:H6	1.56	0.69
1:2A:2126:A:N6	1:2A:2162:G:O2'	2.22	0.69
2:2B:7:G:H1	2:2B:114:C:H42	1.38	0.69
36:2f:23:LYS:HA	36:2f:26:ILE:HD12	1.74	0.69
54:2y:52:G:N2	54:2y:62:C:N3	2.36	0.69
2:1B:1:U:H5"	2:1B:2:C:H5	1.57	0.69
4:1E:134:ILE:HA	4:1E:137:HIS:CD2	2.27	0.69
31:1a:929:G:N2	31:1a:1388:C:N3	2.31	0.69
31:1a:1381:U:H1'	37:1g:79:ARG:HB3	1.75	0.69
1:2A:861:A:N3	2:2B:79:C:O2'	2.24	0.69
46:2p:52:ASP:O	46:2p:54:GLU:N	2.24	0.69
52:2v:123:ARG:HD2	52:2v:675:HIS:CE1	2.27	0.69
1:1A:579:G:H2'	1:1A:580:C:C6	2.26	0.69
1:1A:1220:A:OP2	15:1U:19:LYS:NZ	2.23	0.69
1:1A:1366:A:OP1	22:11:3:LYS:NZ	2.25	0.69
1:1A:1394:U:O2	18:1X:16:LYS:NZ	2.21	0.69
5:1F:117:ARG:NH2	10:1P:1:MET:O	2.26	0.69
31:1a:559:A:H4'	31:1a:560:U:H3'	1.74	0.69
52:1v:400:GLU:O	52:1v:402:ILE:N	2.25	0.69
2:2B:9:G:OP2	13:2S:15:ARG:NH1	2.25	0.69
2:2B:22:U:H3	2:2B:61:G:H1	1.40	0.69
7:2H:45:VAL:HG12	7:2H:50:VAL:HG22	1.74	0.69
17:2W:79:GLY:HA3	17:2W:100:THR:HG22	1.74	0.69
31:2a:619:U:N3	34:2d:134:ASP:OD1	2.26	0.69
1:1A:462:C:H42	1:1A:467:G:H1	1.40	0.69
31:1a:922:G:H4'	35:1e:20:GLN:HA	1.75	0.69
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.27	0.69
5:1F:108:LYS:HG2	5:1F:112:MET:HE2	1.73	0.69
9:1O:49:ARG:NH1	31:1a:1422:G:O3'	2.25	0.69
31:1a:1131:G:H1	31:1a:1143:G:H21	1.40	0.69
1:2A:2427:C:C5'	1:2A:2429:G:H5'	2.22	0.69
14:2T:39:ARG:HH12	14:2T:41:ARG:HD3	1.57	0.69
31:2a:345:C:H5'	31:2a:346:G:C5	2.28	0.69
52:1v:87:HIS:HB3	52:1v:90:PHE:HB3	1.75	0.69
28:17:9:ARG:HH22	28:17:47:ARG:HD2	1.59	0.69
31:1a:1226:C:OP2	43:1m:91:ARG:NH1	2.25	0.69
52:1v:681:LYS:HA	52:1v:684:GLN:HB2	1.74	0.69
1:1A:2090:G:H1	1:1A:2229:C:H42	1.41	0.68
31:1a:978:A:O2'	31:1a:1322:C:N3	2.24	0.68
46:1p:23:ASP:OD1	46:1p:24:ALA:N	2.26	0.68
1:2A:195:A:H61	1:2A:198:C:H3'	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2T:65:LYS:HE3	14:2T:67:SER:HB2	1.74	0.68
42:2l:113:ARG:NH1	42:2l:120:TYR:OH	2.26	0.68
54:2x:36:A:H3'	54:2x:37:MIA:H5"	1.74	0.68
16:1V:60:GLU:HB2	16:1V:97:LYS:HD3	1.75	0.68
42:1l:71:PRO:O	42:1l:102:ARG:NH1	2.25	0.68
50:1t:57:ARG:NH1	50:1t:101:GLY:O	2.26	0.68
1:2A:1826:G:H4'	3:2D:242:ARG:HH21	1.56	0.68
31:2a:356:A:N3	31:2a:368:U:O2'	2.21	0.68
31:2a:967:5MC:H4'	39:2i:125:TYR:HE1	1.58	0.68
43:2m:65:LYS:NZ	43:2m:73:GLU:OE1	2.25	0.68
52:2v:199:ILE:CB	52:2v:200:PRO:HD2	2.23	0.68
1:1A:996:A:OP2	15:1U:93:LYS:NZ	2.27	0.68
10:1P:30:THR:CG2	10:1P:34:GLY:O	2.40	0.68
23:12:2:LYS:N	23:12:5:GLU:OE1	2.26	0.68
31:1a:78:G:N1	31:1a:91:C:C4	2.61	0.68
49:2s:10:PHE:HE2	49:2s:37:ARG:HD3	1.59	0.68
1:1A:2059:A:C8	1:1A:2503:2MA:HM23	2.29	0.68
3:1D:231:HIS:CD2	3:1D:249:PRO:HA	2.27	0.68
31:1a:630:G:H2'	31:1a:631:G:H8	1.58	0.68
52:1v:227:ILE:HG23	52:1v:237:PRO:HG2	1.75	0.68
1:2A:637:A:H5"	10:2P:117:GLU:HG2	1.75	0.68
31:2a:974:A:OP2	44:2n:29:ARG:NH2	2.26	0.68
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.26	0.68
1:2A:910:A:H62	11:2Q:12:GLN:HA	1.58	0.68
1:2A:958:U:OP2	11:2Q:14:ARG:NH1	2.27	0.68
1:2A:2427:C:H5'	1:2A:2429:G:H5'	1.75	0.68
31:2a:1295:G:O2'	43:2m:14:ARG:NH1	2.27	0.68
54:1y:15:G:H22	54:1y:48:C:N4	1.92	0.68
1:2A:1826:G:H2'	1:2A:1827:C:H6	1.57	0.68
1:2A:2619:C:OP1	4:2E:152:LYS:NZ	2.27	0.68
17:2W:65:LEU:HD12	17:2W:68:ARG:HD2	1.75	0.68
31:2a:425:G:O3'	34:2d:45:GLN:NE2	2.27	0.68
31:2a:1010:G:N2	31:2a:1020:U:O2'	2.26	0.68
1:1A:2285:C:OP2	27:16:6:ARG:NH1	2.27	0.68
31:1a:78:G:N1	31:1a:91:C:N4	2.42	0.68
15:2U:83:LEU:HG	15:2U:88:ILE:HB	1.75	0.68
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.27	0.68
40:1j:11:PHE:HE1	40:1j:67:THR:HG22	1.59	0.68
1:2A:2660:A:N6	52:2v:634:MET:O	2.26	0.68
31:2a:335:C:O2'	31:2a:1433:A:N3	2.26	0.68
31:2a:966:M2G:HM23	31:2a:967:5MC:H1'	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1h:110:ALA:HB3	38:1h:121:ASP:HB3	1.75	0.68
53:1w:72:ASP:OD1	53:1w:74:ASN:ND2	2.27	0.68
54:1y:53:G:N2	54:1y:61:C:N3	2.40	0.68
1:2A:2842:G:H1	1:2A:2875:C:H42	1.42	0.68
8:2N:46:VAL:HG23	8:2N:48:MET:HB2	1.75	0.68
34:2d:122:ARG:NH1	34:2d:134:ASP:OD2	2.26	0.68
1:1A:1341:U:H5'	18:1X:57:LEU:HD23	1.76	0.68
1:2A:483:A:C4	19:2Y:60:PHE:CZ	2.82	0.68
1:2A:2012:G:H4'	17:2W:96:ILE:HD13	1.76	0.68
5:2F:117:ARG:NH2	5:2F:189:THR:O	2.25	0.68
9:2O:63:VAL:HG23	9:2O:64:ARG:HG3	1.76	0.68
31:2a:1224:G:N2	31:2a:1363:C:N3	2.41	0.68
3:1D:24:ILE:HG23	3:1D:83:GLU:HA	1.75	0.67
31:1a:1030:C:N4	31:1a:1031:G:H1	1.92	0.67
31:1a:1097:C:O2'	31:1a:1169:A:N3	2.27	0.67
1:2A:2875:C:OP1	14:2T:3:ARG:NH1	2.26	0.67
8:2N:28:THR:HG22	8:2N:29:LYS:HG3	1.76	0.67
1:2A:89:G:H3'	1:2A:90:U:H5"	1.74	0.67
31:2a:1302:U:O4	43:2m:14:ARG:NH1	2.27	0.67
52:2v:357:ARG:HH21	52:2v:366:VAL:HG11	1.60	0.67
52:2v:603:GLU:HG3	52:2v:604:PRO:HD2	1.74	0.67
1:1A:586:A:H5'	5:1F:89:VAL:HG21	1.76	0.67
54:1y:25:C:HO2'	54:1y:26:A:H8	1.42	0.67
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.29	0.67
18:2X:53:LYS:HB3	18:2X:82:GLN:HB3	1.76	0.67
1:1A:2362:G:OP1	29:18:44:LYS:NZ	2.27	0.67
1:1A:2396:G:H2'	1:1A:2397:G:H8	1.59	0.67
5:1F:155:LEU:HB2	5:1F:189:THR:HG21	1.75	0.67
33:1c:36:ASP:HB3	33:1c:40:ARG:HH12	1.59	0.67
39:1i:112:LYS:NZ	39:1i:116:LYS:O	2.27	0.67
53:1w:11:ARG:NH1	53:1w:167:GLU:OE2	2.27	0.67
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.77	0.67
31:2a:582:U:OP1	45:2o:68:ARG:NH2	2.27	0.67
43:2m:4:ILE:HG23	43:2m:5:ALA:H	1.60	0.67
1:1A:1051:G:C5'	1:1A:2752:C:O2'	2.43	0.67
27:16:25:LYS:HE3	27:16:27:LYS:HA	1.76	0.67
32:1b:79:ASP:HB3	32:1b:83:MET:HE3	1.76	0.67
31:2a:737:A:H1'	36:2f:73:ASN:HD21	1.59	0.67
31:2a:983:A:N1	31:2a:1222:G:N2	2.41	0.67
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.74	0.67
12:1R:59:ASP:N	12:1R:59:ASP:OD1	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:964:C:O2'	1:2A:2273:A:N3	2.21	0.67
1:2A:1213:A:H2'	1:2A:1214:A:H8	1.60	0.67
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.76	0.67
11:1Q:60:ARG:HG3	20:1Z:180:VAL:N	2.10	0.67
31:2a:51:A:N1	31:2a:314:C:O2'	2.28	0.67
1:1A:1693:U:H1'	3:1D:14:ARG:HH22	1.59	0.67
1:1A:2319:G:H22	13:1S:3:ARG:CZ	2.08	0.67
16:1V:57:VAL:HG22	16:1V:99:ILE:HG22	1.77	0.67
1:2A:2018:G:OP1	26:25:9:LYS:NZ	2.26	0.67
1:2A:2683:C:O2	9:2O:70:LYS:NZ	2.21	0.67
20:2Z:19:ARG:NH1	20:2Z:84:GLU:O	2.28	0.67
31:2a:409:G:H1	31:2a:433:C:H42	1.43	0.67
31:2a:1011:G:H1	31:2a:1018:C:H42	1.43	0.67
52:2v:251:ILE:HD13	52:2v:285:ASP:HB3	1.76	0.67
2:1B:8:U:O3'	13:1S:25:ARG:NH2	2.28	0.67
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.77	0.67
35:1e:148:VAL:HG12	35:1e:152:ARG:HE	1.59	0.67
54:1y:19:G:N1	54:1y:56:C:N4	2.41	0.67
1:2A:1569:A:H2'	1:2A:1570:A:C8	2.30	0.67
31:2a:1028:C:O2	31:2a:1033:G:N1	2.27	0.67
31:2a:1367:C:OP2	39:2i:112:LYS:NZ	2.26	0.67
44:2n:27:CYS:SG	44:2n:28:GLY:N	2.67	0.67
1:1A:828:U:H5	1:1A:2247:A:H4'	1.60	0.67
31:1a:78:G:N2	31:1a:91:C:N3	2.43	0.67
1:2A:309:G:N3	1:2A:329:G:O2'	2.28	0.67
1:2A:857:C:OP2	21:20:77:ARG:NH2	2.27	0.67
20:2Z:24:LEU:HB2	20:2Z:41:LEU:HD23	1.77	0.67
52:2v:613:PRO:HA	52:2v:640:ALA:HA	1.77	0.67
16:1V:35:LEU:HB2	16:1V:57:VAL:HB	1.77	0.66
39:1i:128:ARG:NH1	54:1x:35:A:OP1	2.28	0.66
52:1v:125:ALA:HB1	52:1v:132:ARG:NH1	2.11	0.66
22:21:40:ARG:NH2	22:21:41:ARG:O	2.28	0.66
1:1A:152:G:H1	1:1A:174:C:H42	1.41	0.66
19:1Y:2:ARG:NH1	19:1Y:5:MET:H	1.92	0.66
31:1a:1117:G:H21	31:1a:1180:A:H1'	1.59	0.66
49:1s:80:TYR:HE1	49:1s:83:HIS:CE1	2.13	0.66
54:1x:8:4SU:H1'	54:1x:48:C:H1'	1.76	0.66
1:2A:1693:U:OP2	1:2A:1694:C:N4	2.27	0.66
24:23:16:PRO:CD	24:23:19:GLN:NE2	2.58	0.66
25:24:58:ARG:HG3	49:2s:67:VAL:H	1.60	0.66
1:1A:582:G:H2'	1:1A:583:G:C8	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:1267:C:O2	51:1u:20:LYS:NZ	2.28	0.66
1:1A:375:C:H42	1:1A:399:G:H1	1.43	0.66
1:1A:881:G:N2	1:1A:897:C:O2	2.29	0.66
1:1A:2254:C:H5"	54:1x:75:C:H4'	1.76	0.66
10:1P:124:LYS:HA	10:1P:144:GLU:HB3	1.78	0.66
31:1a:1512:U:H3	31:1a:1523:G:H1	1.41	0.66
52:1v:13:ARG:NH1	52:1v:280:LEU:O	2.28	0.66
52:1v:99:ARG:HD2	52:1v:402:ILE:HG23	1.77	0.66
1:2A:1837:C:O2'	1:2A:1927:A:N3	2.27	0.66
1:2A:2127:G:N1	1:2A:2161:C:N4	2.44	0.66
10:2P:60:MET:SD	29:28:13:ARG:NH1	2.62	0.66
31:2a:376:G:H5"	46:2p:5:ARG:HB2	1.78	0.66
31:2a:674:G:H2'	31:2a:675:A:H8	1.60	0.66
1:1A:702:G:H1	1:1A:730:C:H42	1.43	0.66
3:1D:147:LEU:HD13	3:1D:155:LEU:HD11	1.78	0.66
3:1D:231:HIS:HD2	3:1D:249:PRO:HA	1.60	0.66
14:1T:16:ARG:HH21	14:1T:19:LEU:HD21	1.60	0.66
31:1a:1240:U:OP2	37:1g:116:ALA:N	2.27	0.66
32:1b:69:LEU:HB3	32:1b:162:ILE:HG22	1.76	0.66
1:2A:1124:C:H4'	30:29:22:ARG:HG2	1.77	0.66
20:2Z:160:GLY:HA2	20:2Z:161:VAL:HB	1.77	0.66
31:2a:967:5MC:H4'	39:2i:125:TYR:CE1	2.30	0.66
41:2k:73:MET:HA	41:2k:77:MET:H	1.61	0.66
1:1A:483:A:H5"	19:1Y:50:ARG:HG3	1.77	0.66
1:1A:2467:C:H4'	11:1Q:123:HIS:CD2	2.30	0.66
31:1a:984:C:N4	31:1a:1221:G:H1	1.92	0.66
32:1b:21:ARG:HB3	32:1b:39:ILE:HG12	1.77	0.66
50:1t:10:LEU:HG	50:1t:12:ALA:H	1.58	0.66
31:2a:922:G:H1	31:2a:1395:C:N4	1.93	0.66
1:1A:457:A:C4	1:1A:459:U:C4	2.84	0.66
54:1y:34:G:H1	55:1z:14:A:H61	1.44	0.66
1:2A:2245:U:H5"	1:2A:2246:G:H5'	1.76	0.66
31:2a:1030:C:N4	31:2a:1031:G:H1	1.93	0.66
1:1A:1342:A:N6	1:1A:1397:U:C5	2.64	0.66
1:1A:1697:G:OP2	1:1A:1698:A:O2'	2.13	0.66
1:1A:1865:G:N2	1:1A:1877:A:OP2	2.29	0.66
1:2A:270:A:OP2	1:2A:271(X):G:N2	2.24	0.66
1:1A:640:C:H42	1:1A:648:G:H1	1.44	0.66
31:1a:136:C:O2'	46:1p:65:GLN:NE2	2.22	0.66
31:1a:986:A:H1'	49:1s:55:LYS:HA	1.78	0.66
31:1a:1518:MA6:N6	31:1a:1519:MA6:H103	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1w:133:ARG:NH1	53:1w:162:GLN:OE1	2.29	0.66
1:2A:2684:U:H3	1:2A:2727:G:H1'	1.61	0.66
3:2D:164:GLN:HB3	3:2D:176:ARG:HG2	1.77	0.66
11:2Q:26:TYR:O	11:2Q:67:ARG:NH1	2.25	0.66
36:2f:99:ALA:HB1	48:2r:23:LYS:HE3	1.77	0.66
10:1P:30:THR:HG21	10:1P:34:GLY:O	1.95	0.66
31:1a:1427:U:H2'	31:1a:1428:A:H8	1.61	0.66
48:1r:73:ALA:HB1	48:1r:78:LEU:HB2	1.78	0.66
1:2A:2121:G:H1	1:2A:2177:C:H42	1.44	0.66
14:2T:55:ASN:HB3	14:2T:58:ASN:HB2	1.78	0.66
43:2m:88:ARG:O	43:2m:92:HIS:ND1	2.29	0.66
1:1A:863:A:H2'	1:1A:864:G:H8	1.61	0.65
1:1A:872:A:OP2	11:1Q:5:ARG:NH2	2.30	0.65
24:13:29:ARG:N	24:13:33:GLN:OE1	2.28	0.65
31:1a:1220:G:N2	49:1s:54:GLY:O	2.27	0.65
31:2a:509:A:H5'	34:2d:55:ALA:HB2	1.77	0.65
1:1A:414:C:H2'	1:1A:415:A:C8	2.31	0.65
1:1A:2143:C:N3	1:1A:2148:G:O6	2.29	0.65
9:1O:97:ARG:NH2	31:1a:339:C:OP2	2.29	0.65
1:2A:918:A:N3	2:2B:80:U:O2'	2.28	0.65
31:2a:1318:A:H5"	49:2s:3:ARG:HD2	1.77	0.65
43:2m:23:TYR:HB3	43:2m:67:GLU:HA	1.79	0.65
52:2v:25:LYS:NZ	59:2v:704:GDP:O1B	2.28	0.65
1:1A:2287:A:H61	1:1A:2344:U:H3	1.44	0.65
31:1a:539:A:H2'	31:1a:540:G:C8	2.30	0.65
36:1f:8:ILE:HD11	36:1f:79:LEU:HD13	1.78	0.65
53:1w:84:ARG:HE	53:1w:92:PRO:HD2	1.61	0.65
1:2A:1912:A:N6	1:2A:1917:PSU:HN3	1.93	0.65
1:2A:2432:A:N3	1:2A:2432:A:H2'	2.09	0.65
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.28	0.65
31:2a:35:G:H22	31:2a:550:G:H1'	1.62	0.65
31:2a:591:U:H2'	31:2a:592:G:H8	1.61	0.65
31:2a:952:U:H2'	31:2a:953:G:H8	1.59	0.65
31:1a:96:U:H2'	31:1a:97:G:C8	2.31	0.65
32:1b:77:ALA:HB2	32:1b:211:ILE:HD13	1.78	0.65
42:2l:113:ARG:NH2	42:2l:115:LYS:O	2.28	0.65
52:2v:7:ASN:O	52:2v:11:ARG:NH1	2.29	0.65
52:2v:134:ALA:HB3	52:2v:258:VAL:HA	1.79	0.65
52:2v:145:ASP:HB3	52:2v:148:LEU:HB2	1.78	0.65
52:2v:668:SER:HB3	53:2w:63:PRO:HD2	1.78	0.65
1:1A:1346:G:H2'	1:1A:1347:G:H8	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:2:C:H2'	2:1B:3:C:C6	2.31	0.65
20:1Z:197:ILE:O	20:1Z:199:LYS:N	2.30	0.65
31:1a:1030:C:N4	31:1a:1031:G:N1	2.38	0.65
1:2A:572:A:OP2	16:2V:78:LYS:NZ	2.29	0.65
31:2a:949:A:N7	43:2m:106:ASN:ND2	2.44	0.65
52:2v:319:ASP:OD1	52:2v:363:ARG:NH2	2.26	0.65
1:1A:828:U:H4'	1:1A:831:G:N1	2.11	0.65
16:1V:5:VAL:HG11	16:1V:35:LEU:HD23	1.79	0.65
32:1b:16:HIS:HB2	32:1b:204:ASN:HB3	1.77	0.65
35:1e:110:LEU:HB3	35:1e:115:VAL:HB	1.77	0.65
1:2A:1223:G:N2	1:2A:1226:A:OP2	2.29	0.65
1:2A:2061:G:H5"	1:2A:2503:2MA:C2	2.25	0.65
31:2a:998:G:H1	31:2a:1043:C:H42	1.45	0.65
52:2v:25:LYS:NZ	52:2v:26:THR:OG1	2.29	0.65
52:2v:405:PRO:HD2	52:2v:406:GLU:HG2	1.77	0.65
1:1A:807:U:OP1	10:1P:36:LYS:NZ	2.25	0.65
1:1A:1339:G:H21	1:1A:1603:A:H1'	1.61	0.65
1:1A:1909:C:H42	1:1A:1921:G:H22	1.44	0.65
11:1Q:111:GLU:OE2	11:1Q:133:ARG:NH2	2.29	0.65
31:1a:337:C:H2'	31:1a:338:A:H8	1.61	0.65
31:1a:1492:A:H5'	42:1l:47:LYS:HE3	1.79	0.65
1:2A:514:A:N3	1:2A:581:C:O2'	2.25	0.65
1:2A:922:U:O2'	21:20:29:GLN:NE2	2.30	0.65
1:2A:2690:C:H41	1:2A:2713:A:H1'	1.60	0.65
1:2A:2820:A:C5	12:2R:4:LEU:HD11	2.32	0.65
3:2D:28:GLU:HG3	3:2D:29:PRO:HD2	1.79	0.65
31:2a:987:G:H1	31:2a:1218:C:H42	1.44	0.65
46:2p:51:VAL:HG12	46:2p:53:VAL:H	1.62	0.65
1:1A:271(T):C:H2'	1:1A:271(U):G:C8	2.32	0.65
7:1H:24:VAL:HG22	7:1H:35:VAL:HB	1.78	0.65
10:1P:60:MET:HA	29:18:13:ARG:NH1	2.11	0.65
14:1T:88:ILE:HG21	14:1T:91:ARG:HE	1.60	0.65
33:1c:58:GLU:HB3	40:1j:92:THR:HG21	1.79	0.65
1:2A:2355:C:O2	21:20:39:ARG:NH2	2.29	0.65
1:1A:580:C:H2'	1:1A:581:C:H6	1.62	0.65
1:1A:833:U:H1'	10:1P:55:ARG:HH21	1.62	0.65
1:1A:1693:U:H1'	3:1D:14:ARG:NH2	2.12	0.65
5:1F:31:HIS:NE2	5:1F:35:GLU:OE2	2.30	0.65
5:1F:158:THR:O	5:1F:164:ARG:NH1	2.29	0.65
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.32	0.65
17:2W:60:ASN:HD22	17:2W:60:ASN:H	1.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:387:U:OP2	22:11:20:ARG:NH1	2.30	0.65
17:1W:73:ALA:HB3	17:1W:106:ILE:HB	1.79	0.65
31:1a:975:A:H4'	31:1a:976:G:H5"	1.79	0.65
38:1h:86:ILE:HG12	38:1h:135:CYS:HA	1.78	0.65
52:1v:614:GLU:HA	52:1v:617:MET:HG3	1.78	0.65
52:2v:182:ARG:O	52:2v:184:LYS:N	2.30	0.65
4:1E:183:LEU:HD21	14:1T:10:VAL:HG11	1.78	0.64
10:1P:95:VAL:HA	10:1P:99:LEU:HD12	1.79	0.64
34:1d:175:SER:HB3	34:1d:184:LYS:HB3	1.77	0.64
52:1v:143:GLY:N	52:1v:171:GLU:OE1	2.30	0.64
1:2A:1379:A:H4'	1:2A:1380:G:OP2	1.97	0.64
1:2A:2136:C:N4	1:2A:2155:G:N1	2.45	0.64
32:2b:16:HIS:HB2	32:2b:204:ASN:HB3	1.78	0.64
53:2w:141:LYS:HE3	53:2w:142:LYS:HE3	1.78	0.64
31:1a:715:A:H2'	31:1a:716:A:C8	2.32	0.64
31:1a:1330:U:H4'	43:1m:23:TYR:CZ	2.32	0.64
20:2Z:182:LYS:O	20:2Z:184:ALA:N	2.30	0.64
7:1H:155:SER:OG	7:1H:156:ALA:N	2.28	0.64
31:1a:601:C:H2'	31:1a:602:A:C8	2.31	0.64
1:2A:2127:G:N2	1:2A:2161:C:N3	2.45	0.64
1:1A:589:C:H5"	5:1F:95:ARG:NH2	2.12	0.64
1:1A:848:G:H2'	1:1A:849:A:C8	2.33	0.64
1:1A:2206:G:H5"	1:1A:2207:G:N7	2.13	0.64
8:1N:47:ALA:HB2	8:1N:112:LEU:HD11	1.79	0.64
21:10:27:GLU:HB2	21:10:69:PHE:HD1	1.63	0.64
54:1y:9:A:H1'	54:1y:45:U:H2'	1.79	0.64
1:2A:604:G:OP2	10:2P:90:ARG:NH2	2.30	0.64
1:2A:744:G:H1	1:2A:753:C:H42	1.46	0.64
1:2A:805:G:N2	1:2A:829:A:OP1	2.31	0.64
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.32	0.64
9:1O:87:ILE:HD12	9:1O:91:LEU:HA	1.79	0.64
31:1a:1295:G:O2'	43:1m:14:ARG:NH1	2.30	0.64
52:1v:182:ARG:NH2	52:1v:278:ASP:OD2	2.31	0.64
1:2A:2478:A:OP2	30:29:2:LYS:NZ	2.31	0.64
42:2l:40:VAL:HG13	42:2l:56:ALA:HB2	1.79	0.64
52:2v:605:ILE:HA	52:2v:648:PRO:HA	1.79	0.64
1:1A:1243:G:O3'	10:1P:7:ARG:NH2	2.31	0.64
1:1A:1267:U:H2'	1:1A:1268:A:H8	1.63	0.64
7:1H:113:VAL:HG11	7:1H:151:ILE:HD13	1.80	0.64
31:1a:134:A:N1	46:1p:25:ARG:NH1	2.45	0.64
31:1a:1372:U:OP1	39:1i:72:GLY:N	2.24	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:409:G:H1	31:2a:433:C:N4	1.96	0.64
31:2a:1165:C:N4	31:2a:1171:G:H1	1.96	0.64
38:2h:20:TYR:HE2	38:2h:75:ARG:HD2	1.63	0.64
1:1A:1047:G:H1'	1:1A:1111:A:H62	1.62	0.64
1:2A:2520:C:HO2'	1:2A:2565:A:HO2'	1.44	0.64
6:2G:66:GLN:OE1	6:2G:98:ARG:NE	2.29	0.64
12:2R:101:ALA:CB	26:25:44:THR:CG2	2.50	0.64
31:2a:370:C:H2'	31:2a:371:G:H8	1.63	0.64
19:1Y:31:LEU:HD11	19:1Y:38:ILE:HD11	1.79	0.64
31:1a:341:C:H2'	31:1a:342:C:C6	2.33	0.64
31:1a:1359:C:O5'	31:1a:1359:C:H6	1.80	0.64
1:2A:796:C:H2'	1:2A:797:C:C6	2.33	0.64
35:1e:68:GLU:HG3	35:1e:70:PRO:HD3	1.78	0.64
1:2A:2376:A:N3	13:2S:106:ARG:NH2	2.45	0.64
31:2a:254:G:H2'	31:2a:255:G:C8	2.32	0.64
31:2a:403:C:H42	31:2a:547:A:H5'	1.61	0.64
1:1A:796:C:H2'	1:1A:797:C:C6	2.33	0.64
14:1T:28:VAL:HG23	14:1T:88:ILE:HA	1.79	0.64
31:1a:1047:G:H5"	44:1n:4:LYS:HD3	1.79	0.64
52:1v:87:HIS:O	52:1v:89:ASP:N	2.31	0.64
4:2E:110:GLY:HA2	4:2E:161:GLY:HA3	1.80	0.64
31:2a:1004:A:N6	31:2a:1037:C:O2	2.31	0.64
31:2a:1347:G:HO2'	31:2a:1373:G:H1	1.44	0.64
1:1A:1218:C:N4	1:1A:1231:G:H1	1.94	0.63
31:1a:67:C:H2'	31:1a:68:G:C8	2.33	0.63
31:1a:377:G:H2'	31:1a:378:G:C8	2.32	0.63
31:1a:1353:G:OP1	51:1u:10:ARG:NH1	2.31	0.63
34:1d:57:ARG:HH21	35:1e:107:ARG:HD3	1.62	0.63
1:2A:2136:C:N4	1:2A:2155:G:H1	1.95	0.63
31:2a:8:A:N6	34:2d:205:GLU:O	2.32	0.63
31:2a:395:C:O3'	52:2v:349:LYS:NZ	2.29	0.63
8:1N:21:LYS:NZ	8:1N:140:VAL:OXT	2.28	0.63
31:1a:1427:U:H2'	31:1a:1428:A:C8	2.32	0.63
4:2E:8:LYS:O	4:2E:193:GLY:N	2.32	0.63
5:2F:187:VAL:HG12	10:2P:3:LEU:HD12	1.80	0.63
24:23:6:VAL:HG13	24:23:56:VAL:HG22	1.79	0.63
31:2a:1027:C:O2'	31:2a:1034:G:N2	2.31	0.63
52:2v:74:TRP:NE1	52:2v:274:ASP:OD1	2.30	0.63
53:2w:64:ARG:HA	53:2w:103:ILE:HB	1.80	0.63
1:1A:1338:G:N7	18:1X:62:LYS:NZ	2.45	0.63
3:1D:125:ILE:HB	36:1f:81:ILE:HD11	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:998:G:H1	31:1a:1043:C:N4	1.96	0.63
43:1m:91:ARG:NE	43:1m:97:PRO:O	2.29	0.63
5:2F:154:VAL:HG22	5:2F:191:ARG:HB2	1.80	0.63
6:2G:36:LYS:HG3	6:2G:160:VAL:HB	1.80	0.63
35:2e:110:LEU:HD13	35:2e:118:ILE:HD13	1.79	0.63
19:1Y:54:LYS:HA	19:1Y:56:PRO:HD3	1.79	0.63
38:2h:18:ARG:NH1	38:2h:81:HIS:O	2.27	0.63
1:1A:1015:G:H2'	1:1A:1016:G:H8	1.63	0.63
14:1T:88:ILE:HG21	14:1T:91:ARG:NE	2.13	0.63
18:1X:9:LEU:HA	23:12:36:ARG:HH21	1.63	0.63
32:1b:24:TRP:CZ3	32:1b:26:PRO:HA	2.34	0.63
37:1g:126:ASP:HB3	37:1g:131:LYS:HB2	1.78	0.63
40:1j:61:GLU:OE1	44:1n:45:ARG:NE	2.29	0.63
1:2A:438:G:H2'	1:2A:440:G:C8	2.33	0.63
1:2A:2439:A:H5"	1:2A:2441:C:OP2	1.98	0.63
17:2W:18:ARG:NH1	17:2W:76:VAL:O	2.32	0.63
52:2v:448:GLN:HE21	52:2v:450:ILE:HD11	1.64	0.63
30:19:25:VAL:HB	30:19:34:GLN:HB2	1.81	0.63
31:1a:1063:C:N4	31:1a:1193:G:H1	1.95	0.63
37:1g:89:MET:SD	37:1g:155:ARG:HB2	2.39	0.63
18:2X:29:TRP:CZ3	18:2X:78:LYS:HB3	2.33	0.63
31:2a:1129:C:O2'	31:2a:1130:A:N7	2.30	0.63
1:1A:1047:G:H1'	1:1A:1111:A:N6	2.13	0.63
1:1A:1295:C:O4'	12:1R:23:ASN:ND2	2.29	0.63
6:1G:66:GLN:NE2	6:1G:93:THR:O	2.31	0.63
43:1m:34:LEU:HD13	43:1m:41:PRO:HA	1.79	0.63
53:1w:37:LEU:HD12	53:1w:38:LEU:HD23	1.81	0.63
55:1z:13:A:OP2	55:1z:13:A:H4'	1.99	0.63
3:2D:78:LYS:HE3	3:2D:114:GLY:HA2	1.80	0.63
17:2W:64:MET:HE3	17:2W:109:GLU:HG3	1.80	0.63
47:2q:19:VAL:HG23	47:2q:44:ALA:HB3	1.79	0.63
52:2v:251:ILE:HG12	52:2v:281:PRO:HG3	1.81	0.63
52:2v:489:LYS:HE2	52:2v:598:ASP:H	1.64	0.63
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.34	0.63
1:1A:2578:G:OP1	1:1A:2614:A:N6	2.31	0.63
47:1q:74:LEU:HD23	47:1q:75:ARG:HG2	1.80	0.63
52:1v:137:ASN:ND2	59:1v:704:GDP:N7	2.47	0.63
1:2A:2751:G:H5"	7:2H:3:ARG:HA	1.80	0.63
47:2q:66:SER:O	47:2q:70:ARG:NH1	2.32	0.63
2:1B:106:G:H5'	20:1Z:31:ARG:HB3	1.79	0.63
31:1a:1412:C:H2'	31:1a:1413:A:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1c:55:VAL:HG13	33:1c:68:VAL:HG22	1.80	0.63
52:1v:3:GLU:O	52:1v:7:ASN:ND2	2.24	0.63
1:2A:1317:A:H2'	1:2A:1318:C:H6	1.63	0.63
1:2A:1389:G:H2'	1:2A:1390:U:C6	2.34	0.63
31:2a:1322:C:H5"	43:2m:100:GLY:HA2	1.81	0.63
1:1A:514:A:H2'	1:1A:515:A:C8	2.33	0.62
1:1A:1341:U:O4	18:1X:16:LYS:HE2	1.99	0.62
31:1a:1159:U:OP1	32:1b:133:LYS:NZ	2.31	0.62
34:1d:23:GLY:HA3	34:1d:112:VAL:HG12	1.80	0.62
38:2h:26:VAL:O	38:2h:59:LEU:N	2.32	0.62
52:2v:87:HIS:O	52:2v:89:ASP:N	2.32	0.62
20:1Z:92:SER:O	20:1Z:130:PRO:HG2	1.99	0.62
31:1a:1318:A:OP1	49:1s:3:ARG:NH1	2.32	0.62
52:1v:313:ALA:O	52:1v:386:GLY:N	2.30	0.62
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.35	0.62
1:2A:2307:G:H8	1:2A:2307:G:OP1	1.80	0.62
18:2X:54:VAL:HG22	18:2X:81:VAL:HG12	1.82	0.62
21:20:15:ASP:OD1	21:20:16:SER:N	2.26	0.62
31:2a:473:G:H2'	31:2a:474:G:C8	2.34	0.62
33:2c:164:ARG:NH2	33:2c:166:GLU:OE1	2.32	0.62
1:1A:857:C:H4'	21:10:23:VAL:HG21	1.81	0.62
1:1A:1341:U:C5	1:1A:1395:A:H2	2.16	0.62
3:1D:206:LEU:HD22	3:1D:211:ARG:HB3	1.81	0.62
31:1a:260:G:OP2	50:1t:83:ARG:NH1	2.32	0.62
31:1a:1404:5MC:HN41	31:1a:1497:G:H1	1.47	0.62
54:1y:50:U:O4	54:1y:64:A:N1	2.33	0.62
52:2v:198:GLU:HG3	52:2v:198:GLU:O	1.98	0.62
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.15	0.62
11:1Q:60:ARG:NH2	20:1Z:183:LEU:HB2	2.14	0.62
14:1T:116:ALA:HB1	14:1T:121:ILE:HD11	1.81	0.62
32:1b:200:ILE:HG22	32:1b:202:PRO:HD3	1.80	0.62
34:1d:156:GLU:O	34:1d:160:GLN:NE2	2.32	0.62
36:1f:30:LEU:HD23	36:1f:75:LEU:HD11	1.80	0.62
54:1y:34:G:H1	55:1z:14:A:N6	1.97	0.62
1:2A:288:C:H2'	1:2A:289:A:H8	1.63	0.62
9:2O:68:GLU:HB3	9:2O:78:ARG:HB2	1.80	0.62
32:2b:97:TRP:HH2	32:2b:102:LEU:HD13	1.64	0.62
1:1A:2123:G:H1	1:1A:2175:C:N4	1.96	0.62
1:1A:2453:A:N1	1:1A:2499:C:N4	2.47	0.62
4:1E:47:VAL:HG11	4:1E:86:PRO:HD2	1.79	0.62
5:1F:95:ARG:HD3	5:1F:97:TYR:CZ	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1P:30:THR:HG21	10:1P:34:GLY:N	2.14	0.62
1:2A:862:G:OP1	11:2Q:18:LYS:NZ	2.32	0.62
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.25	0.62
11:2Q:43:THR:HA	11:2Q:94:VAL:HA	1.81	0.62
14:2T:41:ARG:NH2	31:2a:346:G:OP1	2.30	0.62
20:2Z:99:TYR:HB3	20:2Z:123:ASP:HB2	1.80	0.62
21:20:23:VAL:HA	21:20:38:VAL:HG22	1.80	0.62
7:1H:3:ARG:HG2	7:1H:6:ARG:HG2	1.80	0.62
31:1a:836:G:OP1	48:1r:61:LYS:NZ	2.24	0.62
52:1v:489:LYS:HE2	52:1v:598:ASP:H	1.64	0.62
1:2A:1252:G:OP1	15:2U:36:ARG:NH1	2.33	0.62
15:2U:110:VAL:HG12	15:2U:114:LYS:HE3	1.81	0.62
24:23:16:PRO:CG	24:23:19:GLN:HE21	2.10	0.62
32:2b:103:THR:HA	32:2b:180:LEU:HD11	1.80	0.62
1:1A:776:G:N7	1:1A:793:A:O2'	2.32	0.62
4:1E:23:VAL:HG21	4:1E:183:LEU:HD23	1.81	0.62
5:1F:53:THR:O	5:1F:56:GLU:N	2.32	0.62
31:1a:1073:U:OP2	35:1e:57:LYS:NZ	2.31	0.62
1:2A:2284:C:OP2	27:26:2:ALA:N	2.33	0.62
17:2W:71:VAL:HA	17:2W:107:LEU:HD12	1.81	0.62
25:24:34:GLU:HG3	25:24:35:VAL:HG12	1.80	0.62
43:2m:34:LEU:HD13	43:2m:41:PRO:HB3	1.80	0.62
17:1W:13:SER:HB3	17:1W:16:LYS:HD2	1.80	0.62
31:1a:401:C:O2'	31:1a:621:A:N3	2.33	0.62
2:2B:21:G:H1	2:2B:62:C:H42	1.47	0.62
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.32	0.62
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	1.82	0.62
6:2G:39:ILE:HG23	6:2G:157:ILE:HG12	1.80	0.62
1:1A:271(U):G:H2'	1:1A:271(V):G:H8	1.64	0.62
1:1A:380:U:H2'	1:1A:381:G:H8	1.64	0.62
31:1a:735:C:H5'	48:1r:71:LYS:HD3	1.82	0.62
31:1a:1320:C:O2	49:1s:36:ARG:NH2	2.30	0.62
34:1d:98:GLU:OE1	34:1d:103:ASN:ND2	2.30	0.62
4:2E:23:VAL:HA	4:2E:185:LYS:HA	1.82	0.62
32:2b:88:ALA:HB2	32:2b:219:VAL:HG13	1.82	0.62
34:2d:124:GLY:HA3	34:2d:132:ARG:HH11	1.65	0.62
1:1A:2790:A:H3'	1:1A:2790:A:N3	2.14	0.62
8:1N:22:THR:HB	8:1N:25:ARG:HB2	1.81	0.62
9:1O:35:VAL:HA	9:1O:62:VAL:HG12	1.81	0.62
52:1v:169:GLY:HA3	52:1v:174:PHE:HA	1.81	0.62
1:2A:2439:A:C5'	1:2A:2441:C:OP2	2.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:36:LYS:HB3	6:2G:95:ARG:HG2	1.81	0.62
17:2W:78:GLU:OE2	17:2W:99:ARG:NH1	2.33	0.62
31:2a:503:C:OP2	42:2l:116:SER:HB3	1.99	0.62
31:2a:1254:C:N4	31:2a:1283:G:H1	1.97	0.62
1:1A:957:A:N1	1:1A:2458:G:H4'	2.15	0.61
1:1A:2121:G:H1	1:1A:2177:C:H42	1.45	0.61
52:1v:546:ILE:HD13	52:1v:565:VAL:HG11	1.81	0.61
1:2A:1308:A:H2'	1:2A:1309:G:O4'	2.00	0.61
1:2A:2547:U:H2'	1:2A:2548:G:H8	1.65	0.61
1:2A:2761:G:O2'	7:2H:143:GLN:NE2	2.33	0.61
28:27:5:TRP:O	28:27:6:GLN:NE2	2.32	0.61
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.00	0.61
1:1A:1514:U:H2'	1:1A:1515:G:H8	1.65	0.61
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.35	0.61
1:1A:2818:G:OP2	12:1R:42:LYS:NZ	2.28	0.61
29:18:39:LYS:HA	29:18:42:ARG:NH1	2.14	0.61
52:1v:145:ASP:HB3	52:1v:148:LEU:HB2	1.82	0.61
53:1w:106:LEU:HD23	53:1w:106:LEU:H	1.65	0.61
1:2A:557:U:H2'	1:2A:558:G:H8	1.65	0.61
1:2A:2439:A:C4'	1:2A:2441:C:OP2	2.48	0.61
3:2D:276:LYS:HD3	3:2D:276:LYS:H	1.65	0.61
31:2a:902:G:H2'	31:2a:903:G:H8	1.66	0.61
1:1A:1062:G:H22	1:1A:1077:A:H61	1.46	0.61
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.35	0.61
4:1E:111:ARG:HB2	4:1E:160:TYR:HB3	1.82	0.61
20:1Z:125:LEU:HB3	20:1Z:165:VAL:HG13	1.82	0.61
1:2A:1371:G:H2'	1:2A:1372:U:H5	1.65	0.61
1:2A:2355:C:H1'	21:20:39:ARG:HH21	1.64	0.61
9:2O:78:ARG:NH2	14:2T:73:GLU:OE1	2.21	0.61
14:2T:108:ARG:HA	14:2T:111:ARG:HB2	1.83	0.61
31:2a:1358:U:OP1	44:2n:34:TYR:HA	2.00	0.61
1:1A:742:G:H2'	1:1A:743:G:C8	2.35	0.61
5:1F:184:TYR:CZ	5:1F:188:ARG:HD2	2.34	0.61
7:1H:159:GLU:HG3	7:1H:169:VAL:HG11	1.82	0.61
1:2A:19:C:OP2	15:2U:30:LYS:NZ	2.32	0.61
1:2A:2683:C:OP1	14:2T:53:ARG:NH2	2.34	0.61
12:1R:12:ARG:O	12:1R:17:ARG:NH1	2.33	0.61
24:13:39:ASP:OD1	24:13:44:ARG:NH1	2.33	0.61
36:1f:97:PHE:HB2	48:1r:32:ARG:HE	1.65	0.61
7:2H:11:VAL:HG21	7:2H:50:VAL:HG23	1.83	0.61
14:2T:34:VAL:HG11	14:2T:43:GLN:HE21	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:1491:G:O6	31:2a:1492:A:N6	2.33	0.61
11:1Q:75:THR:HG21	11:1Q:87:LYS:NZ	2.16	0.61
20:1Z:53:ILE:HG22	20:1Z:71:VAL:HB	1.81	0.61
34:1d:99:SER:O	34:1d:140:VAL:N	2.26	0.61
1:2A:529:A:H62	1:2A:2041:U:H3	1.48	0.61
1:2A:1247:A:OP2	10:2P:16:ARG:NH2	2.33	0.61
1:2A:1985:G:H2'	1:2A:1986:A:H8	1.65	0.61
31:2a:537:G:H5"	42:2l:113:ARG:NH1	2.16	0.61
32:2b:179:LYS:HA	38:2h:72:PRO:HG3	1.83	0.61
1:1A:568:U:OP1	1:1A:945:A:N6	2.31	0.61
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.36	0.61
20:1Z:136:PHE:O	20:1Z:137:ILE:HG13	2.01	0.61
31:1a:130:A:N3	31:1a:263:A:O2'	2.26	0.61
43:1m:54:VAL:HA	43:1m:57:ARG:HB3	1.83	0.61
7:2H:41:MET:HE3	7:2H:64:LEU:HB2	1.81	0.61
43:2m:34:LEU:HD22	43:2m:41:PRO:HA	1.81	0.61
52:2v:601:ILE:HG22	52:2v:679:VAL:HG13	1.83	0.61
20:1Z:152:ALA:HA	20:1Z:155:LEU:HD13	1.83	0.61
1:2A:582:G:H2'	1:2A:583:G:C8	2.36	0.61
1:2A:1441:G:H2'	1:2A:1442:G:H8	1.64	0.61
31:2a:953:G:H5'	31:2a:965:A:H61	1.64	0.61
33:2c:18:TRP:O	33:2c:21:ARG:NH1	2.33	0.61
37:2g:42:ILE:HD13	37:2g:116:ALA:HB3	1.82	0.61
1:1A:2314:C:H2'	1:1A:2315:G:H8	1.66	0.61
31:1a:718:G:O6	48:1r:74:ARG:NH1	2.33	0.61
31:1a:1004:A:N6	31:1a:1037:C:N3	2.48	0.61
1:2A:840:C:H2'	1:2A:841:A:H8	1.64	0.61
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.35	0.61
31:2a:186:C:H5'	50:2t:78:ALA:HB1	1.83	0.61
31:2a:584:G:H2'	31:2a:585:G:C8	2.36	0.61
39:2i:40:LEU:HD11	39:2i:70:LYS:HD3	1.83	0.61
54:2x:19:G:O4'	54:2x:57:G:N2	2.34	0.61
1:1A:910:A:C5	11:1Q:13:GLN:HG3	2.35	0.61
1:1A:1344:G:H5'	1:1A:1384:A:C6	2.35	0.61
1:1A:1751:C:HO2'	1:1A:2861:G:HO2'	1.44	0.61
7:1H:40:GLU:OE2	7:1H:61:HIS:NE2	2.31	0.61
18:1X:10:ALA:HA	23:12:37:PHE:CE1	2.36	0.61
19:1Y:35:TYR:CE2	19:1Y:69:ALA:HB3	2.35	0.61
37:1g:113:GLU:HG3	37:1g:119:ARG:HG2	1.82	0.61
39:1i:19:LEU:HD11	39:1i:81:ILE:HG13	1.83	0.61
44:1n:2:ALA:HB1	44:1n:6:LEU:HD13	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1w:150:SER:O	53:1w:154:THR:HG22	2.01	0.61
1:2A:2287:A:N6	1:2A:2344:U:H3	1.96	0.61
1:1A:19:C:H42	1:1A:521:G:H1	1.49	0.60
1:1A:1703:G:H2'	1:1A:1704:G:C8	2.36	0.60
1:1A:2292:C:P	13:1S:17:ARG:HH21	2.23	0.60
1:1A:2584:U:H2'	1:1A:2585:U:H2'	1.83	0.60
11:1Q:60:ARG:HH22	20:1Z:183:LEU:HB2	1.65	0.60
12:1R:72:ASP:O	12:1R:76:VAL:HG23	2.01	0.60
18:1X:57:LEU:CD1	18:1X:78:LYS:HG3	2.31	0.60
31:1a:630:G:H2'	31:1a:631:G:C8	2.36	0.60
44:1n:7:ILE:HG13	44:1n:23:ARG:HG2	1.82	0.60
1:2A:483:A:O4'	19:2Y:48:ALA:HB1	2.01	0.60
1:2A:1530:C:H42	1:2A:1539:G:H1	1.48	0.60
1:2A:1651:G:OP1	12:2R:40:LYS:NZ	2.32	0.60
5:2F:130:ALA:H	5:2F:142:TRP:CD1	2.19	0.60
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	1.81	0.60
36:2f:6:VAL:HG13	36:2f:90:VAL:HG22	1.83	0.60
38:2h:6:ILE:HB	38:2h:85:ARG:NH1	2.16	0.60
52:2v:12:LEU:HD23	52:2v:283:PRO:HG2	1.83	0.60
1:1A:2577:A:OP2	26:15:3:LYS:NZ	2.24	0.60
3:1D:76:PRO:HB2	3:1D:116:GLN:NE2	2.16	0.60
1:2A:582:G:H1	1:2A:1258:C:H42	1.48	0.60
1:2A:2467:C:O2	11:2Q:124:LYS:NZ	2.27	0.60
1:2A:2736:G:N2	1:2A:2768:C:O2	2.25	0.60
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.36	0.60
14:2T:39:ARG:NH2	31:2a:345:C:OP2	2.34	0.60
21:20:38:VAL:HG11	21:20:45:PHE:HD2	1.65	0.60
32:2b:184:VAL:HG12	32:2b:197:VAL:HG13	1.83	0.60
1:1A:1067:A:O2'	52:1v:686:LYS:NZ	2.28	0.60
1:1A:2099:U:H3	1:1A:2190:G:H1	1.49	0.60
1:1A:2408:U:H2'	1:1A:2409:G:H8	1.66	0.60
9:1O:68:GLU:OE1	9:1O:78:ARG:NH1	2.34	0.60
11:1Q:60:ARG:NE	20:1Z:180:VAL:HA	2.16	0.60
1:2A:302:C:H42	1:2A:315:G:H1	1.49	0.60
1:2A:528:A:N1	1:2A:2043:C:H4'	2.16	0.60
1:2A:1687:G:N1	1:2A:1700:A:OP1	2.30	0.60
4:2E:109:LYS:HE2	4:2E:191:PRO:HB3	1.82	0.60
13:2S:12:PHE:O	13:2S:16:ASN:ND2	2.34	0.60
48:2r:26:LEU:HD11	48:2r:42:ARG:HD3	1.83	0.60
54:2y:9:A:H62	54:2y:23:A:H62	1.49	0.60
1:1A:2453:A:H61	1:1A:2500:U:H3	1.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:631:A:OP1	10:2P:65:ARG:NE	2.33	0.60
3:2D:12:SER:HB3	3:2D:208:LYS:HB3	1.82	0.60
24:23:16:PRO:HD2	24:23:19:GLN:CD	2.25	0.60
25:24:58:ARG:HB2	49:2s:67:VAL:HB	1.82	0.60
31:2a:892:A:N6	31:2a:906:G:O2'	2.33	0.60
40:2j:47:PHE:HB3	44:2n:34:TYR:HE2	1.66	0.60
2:1B:75:G:H21	20:1Z:85:HIS:CE1	2.20	0.60
3:1D:242:ARG:HH11	3:1D:242:ARG:H	1.47	0.60
4:1E:59:VAL:O	4:1E:64:LYS:NZ	2.28	0.60
20:1Z:152:ALA:HB3	20:1Z:167:PRO:HA	1.83	0.60
11:2Q:60:ARG:HH12	20:2Z:181:GLU:H	1.47	0.60
31:2a:114:U:H2'	31:2a:115:G:C8	2.35	0.60
44:2n:23:ARG:NH1	44:2n:28:GLY:O	2.34	0.60
52:2v:634:MET:HE3	52:2v:643:ILE:HG12	1.84	0.60
1:1A:2647:U:H2'	1:1A:2648:C:C6	2.37	0.60
31:1a:403:C:H2'	31:1a:404:U:H6	1.67	0.60
52:1v:635:GLU:O	52:1v:642:VAL:N	2.21	0.60
2:2B:54:G:H21	6:2G:29:TRP:NE1	1.99	0.60
20:2Z:31:ARG:NH1	20:2Z:94:GLU:OE2	2.35	0.60
52:2v:199:ILE:CB	52:2v:200:PRO:CD	2.80	0.60
1:1A:1638:C:O3'	1:1A:2709:G:N2	2.34	0.60
1:1A:1821:A:H2'	1:1A:1822:G:C8	2.37	0.60
13:1S:68:GLN:HG3	13:1S:71:ARG:HH21	1.66	0.60
27:16:9:LEU:HD13	27:16:51:GLU:HB2	1.82	0.60
7:2H:51:ARG:NH1	7:2H:53:GLU:OE2	2.35	0.60
31:2a:258:G:H2'	31:2a:259:G:H8	1.66	0.60
52:2v:103:GLY:H	52:2v:130:VAL:HG23	1.67	0.60
1:1A:1815:A:P	3:1D:54:ARG:HH22	2.25	0.60
28:17:9:ARG:HH12	28:17:47:ARG:HB2	1.65	0.60
31:1a:1220:G:O3'	49:1s:36:ARG:HD3	2.01	0.60
1:2A:1034:G:H5'	30:29:18:ARG:HD3	1.83	0.60
1:2A:1973:G:H2'	1:2A:1974:C:H6	1.66	0.60
1:2A:2129:C:H42	1:2A:2159:G:H1	1.50	0.60
31:2a:1491:G:H3'	31:2a:1492:A:H5"	1.84	0.60
45:2o:64:ARG:O	45:2o:68:ARG:N	2.29	0.60
6:1G:161:THR:OG1	6:1G:172:LEU:HD23	2.01	0.60
17:1W:89:ALA:C	17:1W:91:GLY:H	2.10	0.60
22:11:12:PRO:HB2	22:11:41:ARG:HH21	1.67	0.60
34:1d:173:TRP:CD1	34:1d:173:TRP:H	2.18	0.60
53:1w:85:ASP:O	53:1w:87:ASP:N	2.35	0.60
1:2A:23:G:H1	1:2A:517:C:H42	1.50	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:839:U:H2'	1:2A:840:C:C6	2.37	0.60
1:2A:1127:A:N7	1:2A:2488:A:O2'	2.34	0.60
1:2A:1973:G:H2'	1:2A:1974:C:C6	2.37	0.60
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	1.84	0.60
31:2a:975:A:N3	31:2a:1357:A:N3	2.50	0.60
31:2a:1312:G:N2	31:2a:1325:C:N3	2.42	0.60
31:2a:1359:C:O2'	31:2a:1361:G:N7	2.35	0.60
52:2v:199:ILE:HG22	52:2v:200:PRO:HD3	1.84	0.60
52:2v:601:ILE:HG23	52:2v:684:GLN:CB	2.30	0.60
1:1A:17:G:H2'	1:1A:18:C:H6	1.65	0.60
1:1A:863:A:O3'	2:1B:101:G:N2	2.35	0.60
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.67	0.60
1:1A:1105:U:H2'	1:1A:1106:G:C8	2.37	0.60
1:1A:1436:G:H1	1:1A:1556:C:H42	1.50	0.60
1:1A:2010:G:H5"	17:1W:42:ARG:HB2	1.83	0.60
11:1Q:34:LEU:HD11	11:1Q:129:THR:HB	1.83	0.60
24:13:15:TYR:CE2	24:13:53:LEU:HD21	2.37	0.60
31:1a:1002:G:H3'	31:1a:1003:G:H4'	1.82	0.60
45:1o:26:GLU:HG3	45:1o:81:LEU:HD22	1.82	0.60
46:1p:19:ILE:HG22	46:1p:36:ILE:HG13	1.83	0.60
47:1q:59:ILE:HD12	47:1q:71:PHE:HD2	1.67	0.60
1:2A:1826:G:H2'	1:2A:1827:C:C6	2.36	0.60
16:2V:76:LYS:HB2	16:2V:81:TYR:HB3	1.83	0.60
33:2c:138:VAL:HG13	33:2c:149:ALA:HB3	1.84	0.60
1:1A:869:G:H2'	1:1A:870:A:H8	1.67	0.59
6:1G:136:ARG:HG3	6:1G:137:GLU:HG3	1.83	0.59
9:1O:24:VAL:HG12	9:1O:33:ALA:HB2	1.84	0.59
19:1Y:68:HIS:HB3	19:1Y:71:LYS:HG3	1.84	0.59
33:1c:92:ALA:O	33:1c:96:GLY:N	2.26	0.59
37:1g:69:VAL:HA	37:1g:138:LYS:HD2	1.83	0.59
52:1v:2:LYS:HG2	52:1v:6:GLU:HG3	1.84	0.59
17:2W:45:TYR:OH	17:2W:49:LYS:NZ	2.21	0.59
31:2a:1105:A:H2'	31:2a:1106:G:H8	1.67	0.59
45:2o:70:LEU:HD12	45:2o:78:TYR:HB2	1.83	0.59
52:2v:199:ILE:HG22	52:2v:200:PRO:CD	2.32	0.59
1:1A:557:U:H2'	1:1A:558:G:C8	2.38	0.59
5:1F:123:LEU:HD12	5:1F:124:LEU:H	1.67	0.59
6:1G:161:THR:HG21	6:1G:163:ALA:HB3	1.84	0.59
31:1a:564:C:C4	47:1q:31:LEU:HD11	2.37	0.59
31:1a:1089:G:H1	31:1a:1096:C:H42	1.49	0.59
31:1a:1162:C:H42	31:1a:1174:G:H1	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1m:58:GLU:O	43:1m:62:ASN:ND2	2.35	0.59
1:2A:997:G:H5"	15:2U:92:ARG:NH1	2.17	0.59
15:2U:34:LYS:NZ	15:2U:37:GLU:OE1	2.33	0.59
31:2a:473:G:H2'	31:2a:474:G:H8	1.67	0.59
31:2a:620:C:C2	34:2d:135:LEU:HG	2.36	0.59
52:2v:13:ARG:HH12	52:2v:247:ARG:HH22	1.50	0.59
1:1A:125:G:H21	28:17:48:LYS:HG2	1.66	0.59
1:1A:2125:G:H22	1:1A:2172:U:P	2.25	0.59
1:1A:2398:U:H2'	1:1A:2399:G:C8	2.37	0.59
11:1Q:110:THR:HG23	11:1Q:113:GLN:HB2	1.84	0.59
25:14:58:ARG:HG2	49:1s:68:GLY:H	1.66	0.59
10:2P:38:GLN:HG2	10:2P:45:LEU:H	1.67	0.59
14:2T:53:ARG:NH1	14:2T:60:THR:OG1	2.32	0.59
31:2a:370:C:H2'	31:2a:371:G:C8	2.37	0.59
52:2v:486:THR:O	52:2v:600:VAL:N	2.28	0.59
1:1A:573:G:O2'	1:1A:574:C:H3'	2.01	0.59
13:1S:61:ASN:HD21	13:1S:63:THR:HB	1.67	0.59
52:1v:276:VAL:O	52:1v:280:LEU:HB2	2.02	0.59
53:1w:80:GLU:OE2	53:1w:94:ASN:ND2	2.35	0.59
1:2A:2292:C:OP1	13:2S:17:ARG:NH2	2.36	0.59
1:2A:2316:C:O2'	6:2G:128:ARG:NH2	2.34	0.59
7:2H:87:LEU:HD23	7:2H:164:TYR:HA	1.84	0.59
31:2a:35:G:N2	31:2a:550:G:H1'	2.17	0.59
31:2a:1352:C:H42	31:2a:1370:G:H1	1.51	0.59
52:2v:309:LEU:HD21	52:2v:335:LEU:HD13	1.82	0.59
1:1A:1754:C:OP1	14:1T:96:ARG:HD2	2.02	0.59
1:1A:1912:A:N6	31:1a:1408:A:H4'	2.17	0.59
7:1H:125:VAL:HG22	7:1H:131:VAL:HG22	1.83	0.59
31:1a:58:C:O2'	31:1a:388:G:N7	2.25	0.59
1:2A:615:G:OP2	5:2F:43:LYS:NZ	2.30	0.59
1:2A:1032:A:H4'	30:29:16:VAL:HG11	1.85	0.59
43:2m:76:ALA:HA	43:2m:79:LYS:HE3	1.84	0.59
1:1A:2059:A:H5"	1:1A:2060:A:OP2	2.03	0.59
22:11:51:VAL:HG11	22:11:74:VAL:HG21	1.84	0.59
42:1l:56:ALA:HB2	42:1l:70:ILE:HD11	1.85	0.59
52:1v:20:HIS:HA	52:1v:117:GLN:HB2	1.84	0.59
1:2A:375:C:H2'	1:2A:376:C:C6	2.37	0.59
1:2A:840:C:OP2	1:2A:932:G:N2	2.34	0.59
1:2A:2319:G:H22	13:2S:3:ARG:HH11	1.51	0.59
25:24:24:THR:OG1	25:24:25:TYR:N	2.36	0.59
1:1A:1295:C:H2'	1:1A:1296:G:H8	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2124:G:H1	1:1A:2174:C:H42	1.48	0.59
7:1H:152:ARG:HG3	7:1H:161:GLY:HA2	1.85	0.59
54:1y:25:C:O2'	54:1y:26:A:H8	1.86	0.59
1:2A:2420:C:H5'	27:26:54:ILE:HD11	1.83	0.59
1:2A:2819:G:H2'	1:2A:2821:A:N7	2.18	0.59
13:2S:84:GLN:H	13:2S:111:GLU:HB2	1.67	0.59
1:1A:783:A:O2'	1:1A:785:G:OP1	2.20	0.59
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.38	0.59
11:1Q:60:ARG:HD2	20:1Z:179:ASP:N	2.17	0.59
11:1Q:137:TYR:HB3	20:1Z:76:LEU:HD11	1.84	0.59
20:1Z:183:LEU:O	20:1Z:185:GLU:N	2.32	0.59
31:1a:677:U:O2	31:1a:777:A:O2'	2.21	0.59
31:1a:966:M2G:HM12	54:1x:34:G:H5'	1.84	0.59
31:1a:1228:C:H5'	43:1m:108:ARG:HH22	1.68	0.59
32:1b:163:PHE:HA	32:1b:185:ILE:HG13	1.85	0.59
49:1s:53:ASN:HB3	49:1s:75:ALA:HB1	1.85	0.59
1:2A:186:G:H2'	1:2A:187:G:H8	1.68	0.59
23:22:1:MET:SD	23:22:56:GLN:NE2	2.76	0.59
52:2v:99:ARG:HH22	52:2v:331:TYR:HE2	1.51	0.59
52:2v:479:PRO:HG2	52:2v:481:VAL:HG23	1.84	0.59
7:1H:9:ILE:HD11	7:1H:69:ARG:HG2	1.83	0.59
1:2A:1225:G:H4'	16:2V:84:LYS:HG2	1.85	0.59
7:2H:3:ARG:HG2	7:2H:4:ILE:H	1.67	0.59
32:2b:223:ILE:HG22	32:2b:226:ARG:HD3	1.85	0.59
34:2d:8:VAL:HG22	34:2d:21:LEU:HD13	1.85	0.59
52:2v:407:PRO:O	52:2v:676:TYR:OH	2.20	0.59
1:1A:253:C:H2'	1:1A:254:G:O4'	2.02	0.59
1:1A:1012:U:O4	8:1N:28:THR:HG21	2.03	0.59
1:1A:1568:G:H5"	3:1D:61:LEU:HD13	1.84	0.59
1:1A:1952:A:C2	9:1O:22:ILE:HB	2.38	0.59
1:1A:1991:U:H2'	1:1A:1992:G:H5"	1.85	0.59
1:1A:1996:C:OP1	9:1O:31:LYS:NZ	2.35	0.59
6:1G:41:GLN:HG2	6:1G:155:MET:HB3	1.84	0.59
31:1a:674:G:H2'	31:1a:675:A:H8	1.68	0.59
1:2A:1709:U:H2'	1:2A:1710:C:C6	2.38	0.59
7:2H:144:VAL:O	7:2H:148:ILE:HG12	2.02	0.59
1:1A:574:C:N3	4:1E:145:LYS:NZ	2.51	0.58
1:1A:631:A:OP2	29:18:47:LYS:NZ	2.32	0.58
1:1A:1051:G:C4'	1:1A:2752:C:O2'	2.48	0.58
1:1A:2017:U:O2	26:15:10:LYS:HB2	2.03	0.58
11:1Q:1:MET:HE1	11:1Q:45:GLN:HG3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Z:26:GLY:HA2	20:1Z:85:HIS:CD2	2.38	0.58
53:1w:123:GLU:O	53:1w:127:VAL:HG13	2.03	0.58
5:2F:120:GLU:HG3	5:2F:122:LYS:HG2	1.85	0.58
10:2P:65:ARG:O	10:2P:68:GLN:NE2	2.33	0.58
19:2Y:47:LYS:HB3	19:2Y:61:ILE:HG12	1.84	0.58
31:2a:689:C:OP1	41:2k:27:ASN:ND2	2.35	0.58
1:1A:251:A:C5	1:1A:252:G:H1'	2.38	0.58
1:1A:640:C:N4	1:1A:648:G:H1	2.01	0.58
1:1A:1062:G:H8	1:1A:1070:A:H4'	1.69	0.58
1:1A:1821:A:H2'	1:1A:1822:G:H8	1.68	0.58
6:1G:161:THR:CG2	6:1G:163:ALA:HB3	2.32	0.58
12:1R:33:ARG:HA	12:1R:114:VAL:O	2.04	0.58
1:2A:674:G:O2'	5:2F:67:GLN:NE2	2.35	0.58
1:2A:2291:U:OP1	1:2A:2381:C:H5'	2.02	0.58
15:2U:97:ASP:OD1	15:2U:101:ARG:NH1	2.35	0.58
31:2a:236:G:OP1	47:2q:40:LYS:NZ	2.28	0.58
52:2v:35:TYR:HE2	52:2v:269:VAL:HB	1.68	0.58
1:1A:2643:G:H2'	1:1A:2644:G:O4'	2.03	0.58
10:1P:50:ARG:HG2	29:18:61:LEU:HD11	1.83	0.58
17:1W:58:ALA:HB1	17:1W:64:MET:HB2	1.85	0.58
32:1b:88:ALA:O	32:1b:226:ARG:NH1	2.36	0.58
32:1b:155:LEU:HD11	32:1b:159:PRO:HG3	1.84	0.58
37:1g:140:ASP:OD1	37:1g:143:ARG:NH2	2.36	0.58
42:1l:89:ARG:NH2	42:1l:91:LYS:HA	2.19	0.58
49:1s:55:LYS:HG2	49:1s:56:GLN:HG3	1.86	0.58
52:1v:639:ASN:N	52:1v:640:ALA:HB3	2.18	0.58
1:2A:1223:G:OP2	16:2V:66:ARG:NH1	2.36	0.58
1:2A:1557:C:OP2	1:2A:1558:A:O2'	2.17	0.58
17:2W:36:LEU:HD13	17:2W:48:ALA:HA	1.85	0.58
31:2a:835:U:H3	31:2a:851:G:H1	1.51	0.58
41:2k:34:ASP:OD1	41:2k:38:ASN:N	2.36	0.58
52:2v:188:TYR:HB2	52:2v:267:LYS:HE3	1.84	0.58
1:1A:729:G:OP2	3:1D:13:ARG:NH2	2.36	0.58
4:1E:34:VAL:HG23	4:1E:48:GLN:HE21	1.67	0.58
1:2A:872:A:OP1	11:2Q:5:ARG:NH2	2.37	0.58
3:2D:274:ARG:O	3:2D:275:LYS:HD2	2.03	0.58
31:2a:36:C:O2'	42:2l:117:ARG:NH2	2.36	0.58
31:2a:770:C:H2'	31:2a:771:G:H8	1.69	0.58
39:2i:20:ARG:O	39:2i:60:ASP:N	2.30	0.58
1:1A:807:U:O2'	1:1A:2060:A:N1	2.37	0.58
1:1A:2206:G:H3'	1:1A:2207:G:H8	1.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1P:38:GLN:NE2	10:1P:45:LEU:HA	2.16	0.58
31:1a:639:G:H2'	31:1a:640:A:H8	1.69	0.58
31:1a:662:G:H2'	31:1a:663:A:C8	2.39	0.58
52:1v:607:ARG:HB2	52:1v:646:PHE:HE1	1.68	0.58
1:2A:2110:G:H3'	1:2A:2111:C:H5'	1.86	0.58
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.38	0.58
4:2E:18:ASP:HB3	14:2T:82:LEU:HD21	1.85	0.58
13:2S:3:ARG:NH2	13:2S:4:LEU:O	2.36	0.58
17:2W:12:ILE:O	17:2W:101:SER:OG	2.22	0.58
31:2a:1096:C:O2'	31:2a:1170:A:O2'	2.22	0.58
52:2v:414:GLU:HG2	52:2v:415:PRO:HD2	1.84	0.58
1:1A:674:G:O2'	5:1F:74:ARG:HD3	2.03	0.58
1:1A:1062:G:H22	1:1A:1077:A:N6	2.02	0.58
13:1S:4:LEU:O	13:1S:9:ARG:NH1	2.37	0.58
17:1W:1:MET:HE3	17:1W:62:HIS:HB3	1.84	0.58
31:1a:1033:G:H2'	31:1a:1034:G:H8	1.68	0.58
38:1h:20:TYR:CE2	38:1h:75:ARG:HD2	2.38	0.58
52:1v:294:PRO:HD3	52:1v:397:VAL:HG12	1.86	0.58
54:1y:5:G:H1	54:1y:68:C:N4	1.99	0.58
4:2E:119:ARG:NH1	4:2E:159:HIS:O	2.36	0.58
19:2Y:1:MET:HE3	19:2Y:2:ARG:HB3	1.84	0.58
42:2l:60:LEU:HD21	42:2l:85:ILE:HD11	1.85	0.58
1:1A:1275:A:N1	1:1A:1295:C:O2'	2.37	0.58
54:1x:3:C:N4	54:1x:70:G:H1	2.02	0.58
1:2A:607:U:OP1	5:2F:103:LYS:N	2.24	0.58
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.18	0.58
1:2A:2125:G:H1	1:2A:2172:U:P	2.27	0.58
5:2F:101:LEU:O	5:2F:106:ARG:NH1	2.36	0.58
9:2O:10:VAL:HG11	9:2O:16:ALA:HB3	1.84	0.58
31:2a:328:C:H4'	31:2a:329:A:H5'	1.84	0.58
31:2a:1213:A:O2'	31:2a:1215:G:N7	2.36	0.58
52:2v:405:PRO:HB2	52:2v:406:GLU:HA	1.86	0.58
52:2v:635:GLU:H	52:2v:642:VAL:HG12	1.68	0.58
53:2w:29:ARG:HG3	53:2w:114:LEU:HD21	1.85	0.58
53:2w:80:GLU:HG3	53:2w:92:PRO:HB2	1.86	0.58
1:1A:2340:G:H2'	1:1A:2341:G:H8	1.68	0.58
9:1O:19:ILE:HG22	9:1O:43:VAL:HA	1.86	0.58
31:1a:1317:C:N3	49:1s:37:ARG:NH1	2.50	0.58
39:1i:22:GLY:H	39:1i:59:PHE:HA	1.69	0.58
1:2A:1665:A:H5"	9:2O:66:LYS:HG2	1.84	0.58
19:2Y:20:TYR:O	19:2Y:22:GLY:N	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:1366:C:O2'	40:2j:60:ARG:NH2	2.36	0.58
44:2n:29:ARG:HD3	44:2n:40:CYS:SG	2.43	0.58
52:2v:473:ASP:OD1	52:2v:473:ASP:N	2.34	0.58
1:1A:1804:C:H42	1:1A:1813:G:H1	1.49	0.58
1:1A:2135:A:H5'	1:1A:2160:G:H4'	1.86	0.58
1:1A:2266:A:H5'	1:1A:2267:A:C8	2.39	0.58
10:1P:52:GLU:HB3	10:1P:55:ARG:HE	1.69	0.58
20:1Z:138:GLU:HB3	20:1Z:156:LYS:HE3	1.85	0.58
1:2A:29:U:H4'	15:2U:11:ARG:HH22	1.67	0.58
1:2A:854:G:H2'	1:2A:855:G:C8	2.39	0.58
6:2G:73:ALA:HB2	6:2G:88:ILE:HD11	1.86	0.58
31:2a:1145:C:H4'	31:2a:1146:A:H5'	1.85	0.58
52:2v:181:LEU:HD12	52:2v:216:LEU:HD21	1.85	0.58
1:1A:1274:A:C6	1:1A:1302:A:C2	2.92	0.58
1:1A:1901:A:OP2	3:1D:255:LYS:NZ	2.30	0.58
8:1N:34:LEU:O	8:1N:49:GLY:HA3	2.03	0.58
11:1Q:30:GLY:HA2	11:1Q:107:ALA:HB2	1.85	0.58
12:1R:97:VAL:HG22	12:1R:114:VAL:HG13	1.86	0.58
38:1h:29:SER:HB3	38:1h:32:LYS:HG3	1.85	0.58
40:1j:39:PRO:HA	40:1j:70:ARG:HD3	1.86	0.58
1:2A:2160:G:H3'	1:2A:2161:C:H5"	1.86	0.58
1:2A:2406:U:O4	10:2P:70:GLN:NE2	2.37	0.58
3:2D:222:ARG:NH1	3:2D:224:ALA:HB3	2.18	0.58
6:2G:3:LEU:O	6:2G:8:LYS:NZ	2.36	0.58
31:2a:359:U:H2'	31:2a:360:A:H8	1.68	0.58
31:2a:1077:G:N2	31:2a:1080:A:OP2	2.32	0.58
53:2w:132:ILE:HA	53:2w:135:GLU:HB2	1.85	0.58
1:1A:742:G:H2'	1:1A:743:G:H8	1.68	0.57
1:1A:1759:A:H1'	1:1A:2711:A:C2	2.39	0.57
1:1A:1765:C:H2'	1:1A:1766:U:C6	2.39	0.57
1:1A:1814:G:H4'	3:1D:51:VAL:HG21	1.86	0.57
2:1B:55:U:H2'	2:1B:56:G:C8	2.39	0.57
5:1F:12:LEU:HB3	5:1F:126:VAL:HG12	1.86	0.57
31:1a:636:U:H2'	31:1a:637:G:H8	1.69	0.57
31:1a:1516:G:H2'	31:1a:1518:MA6:OP2	2.04	0.57
35:1e:102:ALA:HB1	35:1e:106:PRO:HB2	1.86	0.57
7:2H:8:PRO:O	7:2H:69:ARG:NH2	2.37	0.57
16:2V:72:VAL:HG13	16:2V:85:LYS:HB2	1.85	0.57
31:2a:1457:G:H2'	31:2a:1458:G:H8	1.68	0.57
37:2g:78:ARG:HG2	37:2g:79:ARG:H	1.69	0.57
37:2g:126:ASP:HB3	37:2g:131:LYS:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2l:102:ARG:HD3	42:2l:120:TYR:HB2	1.86	0.57
1:1A:557:U:H2'	1:1A:558:G:H8	1.68	0.57
1:1A:1176:G:H1'	1:1A:1177:A:H5"	1.86	0.57
1:1A:2556:C:H2'	1:1A:2557:G:O4'	2.04	0.57
1:2A:995:C:O2	8:2N:3:THR:OG1	2.22	0.57
3:2D:44:ASN:C	3:2D:46:GLN:H	2.12	0.57
11:2Q:111:GLU:O	11:2Q:115:MET:HG2	2.03	0.57
40:2j:49:VAL:HG23	44:2n:41:ARG:HB2	1.85	0.57
52:2v:201:ILE:HG21	52:2v:206:LEU:HD23	1.86	0.57
1:1A:278:A:H2'	1:1A:279:C:C6	2.39	0.57
1:1A:415:A:H2'	1:1A:416:C:C6	2.38	0.57
1:1A:2815:C:H5'	26:15:29:THR:HG21	1.85	0.57
3:1D:2:ALA:N	3:1D:200:ASP:OD2	2.37	0.57
31:1a:390:C:H2'	31:1a:391:G:C8	2.36	0.57
31:1a:1049:U:H4'	31:1a:1050:G:H5"	1.84	0.57
31:1a:1356:G:H2'	31:1a:1357:A:C8	2.38	0.57
33:1c:71:ALA:HA	33:1c:106:VAL:HB	1.85	0.57
1:2A:25:U:H5"	17:2W:80:PRO:HD3	1.85	0.57
1:2A:568:U:H6	1:2A:568:U:O5'	1.87	0.57
1:2A:1291:C:H2'	1:2A:1292:U:C6	2.39	0.57
17:2W:82:LEU:HB2	17:2W:98:LYS:HB2	1.87	0.57
29:28:36:LYS:HB2	29:28:41:ILE:HD11	1.86	0.57
30:29:16:VAL:HG22	30:29:25:VAL:HG22	1.87	0.57
31:2a:1401:G:C2	31:2a:1402:4OC:H1'	2.39	0.57
54:2x:20:U:O2'	54:2x:21:A:O4'	2.22	0.57
1:1A:1792:G:O2'	1:1A:1830:C:OP1	2.22	0.57
1:1A:2853:C:H2'	1:1A:2854:G:C8	2.40	0.57
6:1G:133:LEU:HD12	6:1G:157:ILE:HB	1.85	0.57
28:17:9:ARG:NH1	28:17:47:ARG:HB2	2.19	0.57
31:1a:676:A:H1'	41:1k:115:PRO:HB3	1.87	0.57
31:1a:877:C:H2'	31:1a:878:G:H8	1.70	0.57
43:1m:81:LEU:HD13	43:1m:88:ARG:HB3	1.86	0.57
43:1m:91:ARG:HB2	43:1m:98:VAL:HG22	1.87	0.57
52:1v:405:PRO:HB2	52:1v:406:GLU:HA	1.87	0.57
1:2A:137:C:N4	1:2A:139:G:O6	2.38	0.57
1:2A:570:G:H2'	1:2A:2030:A:C5	2.39	0.57
1:2A:1190:G:H2'	1:2A:1191:G:H8	1.69	0.57
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.39	0.57
7:2H:43:VAL:HA	7:2H:52:VAL:HG22	1.87	0.57
15:2U:93:LYS:NZ	16:2V:11:GLN:O	2.20	0.57
31:2a:439:A:OP2	31:2a:493:G:N1	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2b:155:LEU:HD11	32:2b:159:PRO:HG3	1.85	0.57
9:1O:14:THR:HG21	9:1O:86:ILE:HB	1.86	0.57
9:1O:34:THR:OG1	9:1O:35:VAL:N	2.36	0.57
20:1Z:144:LEU:HD11	20:1Z:150:LEU:HD22	1.86	0.57
26:15:16:ARG:NE	26:15:17:ASP:OD1	2.36	0.57
31:1a:1020:U:O2	31:1a:1020:U:H2'	2.03	0.57
31:1a:1207:2MG:H2'	31:1a:1208:C:C6	2.39	0.57
52:1v:-53:ASP:H	52:1v:-50:GLN:NE2	2.01	0.57
52:1v:109:ASP:O	52:1v:113:GLY:N	2.34	0.57
1:2A:438:G:H2'	1:2A:440:G:H8	1.68	0.57
1:2A:588:U:H2'	1:2A:589:C:C6	2.40	0.57
1:2A:2641:G:H5"	8:2N:76:SER:HB2	1.86	0.57
7:2H:15:VAL:HB	7:2H:29:PRO:HD3	1.86	0.57
31:2a:545:C:H5'	34:2d:72:GLU:HB2	1.84	0.57
31:2a:835:U:OP1	48:2r:64:ARG:NH1	2.29	0.57
38:2h:69:ARG:NE	38:2h:75:ARG:O	2.38	0.57
41:2k:27:ASN:OD1	41:2k:28:THR:N	2.34	0.57
52:2v:438:PHE:HB3	52:2v:458:HIS:CE1	2.39	0.57
52:2v:505:GLY:HA2	52:2v:576:ASP:HA	1.86	0.57
52:2v:613:PRO:HG2	52:2v:666:ARG:NE	2.20	0.57
53:2w:68:VAL:HB	53:2w:99:LEU:HB2	1.85	0.57
1:1A:414:C:H2'	1:1A:415:A:H8	1.69	0.57
1:1A:2322:A:H2'	1:1A:2323:G:O4'	2.05	0.57
4:1E:111:ARG:HA	12:1R:1:MET:SD	2.44	0.57
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.40	0.57
9:1O:104:ARG:NH2	9:1O:121:VAL:O	2.37	0.57
17:1W:12:ILE:HD13	17:1W:17:VAL:HG22	1.87	0.57
19:1Y:41:GLY:N	19:1Y:64:GLU:OE2	2.29	0.57
29:18:34:TRP:CG	29:18:35:GLN:N	2.71	0.57
31:1a:1113:C:H1'	33:1c:178:LEU:HD22	1.87	0.57
48:1r:45:SER:HB3	48:1r:51:LEU:HD21	1.85	0.57
1:2A:630:G:N2	1:2A:632:A:H3'	2.19	0.57
1:2A:1035:U:H5"	7:2H:59:ARG:HG3	1.85	0.57
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.38	0.57
1:2A:2404:C:H42	1:2A:2413:G:H1	1.52	0.57
11:2Q:43:THR:HG22	11:2Q:94:VAL:HG12	1.85	0.57
15:2U:45:TYR:O	15:2U:49:HIS:ND1	2.38	0.57
52:2v:309:LEU:HD11	52:2v:335:LEU:HB2	1.85	0.57
1:1A:271(I):G:N7	1:1A:271(J):C:N4	2.53	0.57
1:1A:1790:C:H5"	1:1A:1791:A:OP1	2.04	0.57
18:1X:10:ALA:HA	23:12:37:PHE:HE1	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:1Y:43:ASN:HB3	19:1Y:65:ALA:HB3	1.87	0.57
31:1a:200:G:H1	31:1a:217:C:H42	1.52	0.57
52:1v:529:ILE:HD11	52:1v:567:LEU:HG	1.85	0.57
1:2A:910:A:C5	11:2Q:13:GLN:HG3	2.40	0.57
1:2A:1266:G:O6	17:2W:13:SER:OG	2.20	0.57
3:2D:34:VAL:HG12	3:2D:63:ARG:HG3	1.85	0.57
13:2S:50:SER:O	13:2S:76:LYS:NZ	2.27	0.57
34:2d:55:ALA:O	34:2d:59:ARG:HB2	2.03	0.57
1:1A:17:G:H2'	1:1A:18:C:C6	2.39	0.57
1:1A:566:U:H5"	10:1P:29:LYS:HE3	1.87	0.57
1:1A:1093:G:N2	1:1A:1097:U:C5	2.72	0.57
3:1D:260:ARG:NH1	3:1D:267:SER:OG	2.36	0.57
31:1a:1219:U:HO2'	49:1s:34:TRP:CG	2.23	0.57
35:1e:85:GLY:O	35:1e:87:SER:N	2.34	0.57
1:2A:848:G:H2'	1:2A:849:A:C8	2.39	0.57
1:2A:1991:U:H2'	1:2A:1992:G:H5"	1.86	0.57
1:2A:2620:C:O2'	4:2E:157:ALA:O	2.23	0.57
22:21:50:ARG:NH1	22:21:57:GLU:OE2	2.33	0.57
31:2a:574:A:O2'	31:2a:882:C:O2'	2.22	0.57
31:2a:701:C:OP1	31:2a:702:A:O2'	2.23	0.57
54:2x:40:C:O5'	54:2x:40:C:H6	1.88	0.57
6:1G:18:GLU:OE2	6:1G:21:ARG:NH1	2.38	0.57
31:1a:749:C:H2'	31:1a:750:G:H8	1.69	0.57
31:1a:791:G:O6	31:1a:792:A:N6	2.38	0.57
35:1e:27:ARG:HH11	35:1e:27:ARG:HB2	1.69	0.57
45:1o:3:ILE:HD11	45:1o:38:ARG:HG3	1.87	0.57
52:1v:251:ILE:HG12	52:1v:281:PRO:HG3	1.86	0.57
31:2a:255:G:H4'	47:2q:17:LYS:HE3	1.85	0.57
31:2a:407:G:H5"	34:2d:115:ARG:HG2	1.87	0.57
31:2a:1184:G:H2'	31:2a:1185:G:H8	1.70	0.57
31:2a:1320:C:N3	49:2s:36:ARG:NH2	2.52	0.57
35:2e:18:ARG:NH1	35:2e:26:PHE:O	2.38	0.57
1:1A:384:U:H2'	1:1A:385:C:H6	1.69	0.57
1:1A:863:A:H2'	1:1A:864:G:C8	2.40	0.57
1:1A:1093:G:H3'	1:1A:1094:U:H5"	1.85	0.57
47:1q:92:ARG:HG2	47:1q:92:ARG:NH1	2.11	0.57
1:2A:662:G:H5"	10:2P:16:ARG:HG2	1.87	0.57
1:2A:2206:G:H5"	1:2A:2207:G:C8	2.40	0.57
3:2D:145:VAL:HB	3:2D:155:LEU:HB2	1.87	0.57
31:2a:1133:G:H1	31:2a:1141:C:H42	1.53	0.57
35:2e:146:ALA:O	35:2e:150:ARG:HG2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2i:36:TYR:O	39:2i:70:LYS:NZ	2.34	0.57
52:2v:-4:ALA:O	52:2v:0:ARG:HB2	2.05	0.57
1:1A:142:A:HO2'	1:1A:1407:C:HO2'	1.47	0.56
1:1A:774:A:OP1	3:1D:48:ARG:NH2	2.30	0.56
1:1A:952:G:OP1	11:1Q:16:ARG:NH2	2.38	0.56
1:1A:1652:A:OP1	12:1R:8:ARG:NH1	2.38	0.56
1:1A:1911:PSU:HN3	1:1A:1918:A:H2'	1.70	0.56
1:1A:1921:G:H2'	1:1A:1922:G:C8	2.40	0.56
3:1D:231:HIS:CD2	3:1D:232:PRO:HD2	2.40	0.56
8:1N:21:LYS:HD2	8:1N:26:LEU:HD22	1.87	0.56
17:1W:71:VAL:HA	17:1W:107:LEU:HD12	1.87	0.56
31:1a:107:G:OP1	31:1a:325:A:N6	2.38	0.56
31:1a:337:C:H2'	31:1a:338:A:C8	2.38	0.56
31:1a:368:U:P	52:1v:351:ARG:HH11	2.28	0.56
31:1a:1396:A:H2	35:1e:19:MET:HG3	1.70	0.56
52:1v:388:THR:HG22	52:1v:399:LEU:HG	1.87	0.56
52:1v:632:LEU:HG	52:1v:645:ALA:HA	1.87	0.56
54:1x:76:A:H8	54:1x:76:A:OP1	1.88	0.56
1:2A:840:C:H2'	1:2A:841:A:C8	2.39	0.56
9:2O:2:ILE:HD12	9:2O:6:THR:HG21	1.86	0.56
31:2a:574:A:HO2'	31:2a:882:C:HO2'	1.50	0.56
52:2v:225:GLU:HA	52:2v:228:MET:HE2	1.87	0.56
1:1A:1467:C:C5	1:1A:1546:C:H2'	2.40	0.56
1:1A:2713:A:OP1	12:1R:14:SER:OG	2.23	0.56
5:1F:188:ARG:HG2	10:1P:3:LEU:HD21	1.86	0.56
31:1a:1431:C:H2'	31:1a:1432:G:O4'	2.05	0.56
1:2A:674:G:H1'	5:2F:74:ARG:HD3	1.87	0.56
1:2A:2396:G:H1	1:2A:2420:C:H42	1.53	0.56
3:2D:85:ASP:OD2	3:2D:88:ARG:NH1	2.38	0.56
4:2E:77:ILE:HD13	4:2E:195:LEU:HD13	1.87	0.56
5:2F:179:GLU:O	5:2F:205:ARG:NH2	2.34	0.56
1:1A:631:A:H2'	1:1A:632:A:O4'	2.04	0.56
1:1A:2059:A:C4	1:1A:2503:2MA:N1	2.73	0.56
1:1A:2090:G:H1	1:1A:2229:C:N4	2.03	0.56
1:1A:2121:G:O6	1:1A:2176:A:N6	2.37	0.56
1:1A:2126:A:N1	1:1A:2162:G:O2'	2.34	0.56
1:1A:2331:G:O2'	21:10:43:THR:HG22	2.05	0.56
3:1D:253:GLN:HB2	3:1D:257:LEU:HD12	1.88	0.56
12:1R:56:LYS:HE3	12:1R:88:ARG:HA	1.86	0.56
31:1a:442:C:H42	31:1a:492:G:H1	1.52	0.56
31:1a:1302:U:O4	43:1m:14:ARG:NH1	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1h:20:TYR:HE2	38:1h:75:ARG:HD2	1.69	0.56
1:2A:191:A:H2'	1:2A:192:C:H6	1.69	0.56
1:2A:288:C:H2'	1:2A:289:A:C8	2.41	0.56
1:2A:458:G:O2'	1:2A:469:G:O6	2.21	0.56
1:2A:589:C:H2'	1:2A:590:A:C8	2.40	0.56
1:2A:2052:G:H4'	4:2E:143:ASN:O	2.04	0.56
1:2A:2144:U:H1'	1:2A:2148:G:H22	1.70	0.56
3:2D:77:ALA:HB2	3:2D:97:TYR:CD1	2.40	0.56
4:2E:24:THR:HG23	4:2E:184:VAL:HG13	1.87	0.56
31:2a:908:A:H2'	31:2a:909:A:H8	1.70	0.56
31:2a:1224:G:N1	31:2a:1363:C:N4	2.50	0.56
31:2a:1329:A:H5'	43:2m:29:ARG:HD2	1.86	0.56
36:2f:50:TYR:OH	48:2r:74:ARG:O	2.21	0.56
39:2i:47:LEU:HB3	39:2i:50:LEU:HD21	1.86	0.56
47:2q:59:ILE:HD12	47:2q:71:PHE:HD2	1.70	0.56
52:2v:-61:LEU:HG	52:2v:-31:ALA:HA	1.87	0.56
1:1A:1830:C:H2'	1:1A:1831:G:H8	1.70	0.56
7:1H:3:ARG:HG3	7:1H:4:ILE:N	2.21	0.56
31:1a:932:C:H2'	31:1a:933:G:H8	1.70	0.56
31:1a:1409:C:H2'	31:1a:1410:G:H8	1.70	0.56
33:1c:71:ALA:HB2	33:1c:115:LEU:HD21	1.88	0.56
49:1s:12:ASP:O	49:1s:14:HIS:N	2.37	0.56
53:1w:59:THR:O	53:1w:61:PRO:HD3	2.06	0.56
1:2A:816:C:H2'	1:2A:817:C:C6	2.40	0.56
14:2T:118:ARG:HB3	31:2a:1442(A):G:C5	2.40	0.56
33:2c:34:LEU:HD13	44:2n:25:VAL:HB	1.88	0.56
1:1A:748:G:O6	17:1W:90:ARG:NH1	2.39	0.56
1:1A:2235:G:H2'	1:1A:2236:C:C6	2.41	0.56
1:1A:2734:A:H2'	1:1A:2735:G:O4'	2.06	0.56
20:1Z:125:LEU:HG	20:1Z:164:ALA:HB3	1.86	0.56
35:1e:78:HIS:CE1	35:1e:142:LEU:HA	2.41	0.56
42:1l:89:ARG:HH22	42:1l:91:LYS:HA	1.69	0.56
1:2A:784:A:C6	3:2D:229:VAL:HG11	2.41	0.56
1:2A:1434:A:H61	1:2A:1558:A:N6	2.01	0.56
1:2A:2571:C:O2'	4:2E:146:THR:O	2.21	0.56
2:2B:69:G:H1	2:2B:108:U:H3	1.54	0.56
4:2E:120:TRP:NE1	4:2E:156:MET:O	2.39	0.56
24:23:3:ARG:HH21	24:23:36:VAL:HG11	1.71	0.56
31:2a:1321:C:O2	49:2s:36:ARG:NH2	2.38	0.56
36:2f:9:VAL:HB	36:2f:87:ARG:HB2	1.87	0.56
40:2j:34:VAL:HG12	40:2j:74:ILE:HD12	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1062:G:OP1	1:1A:1070:A:O2'	2.22	0.56
1:1A:1226:A:OP1	16:1V:84:LYS:NZ	2.26	0.56
1:1A:2136:C:N3	1:1A:2155:G:C2	2.74	0.56
1:1A:2512:C:H4'	4:1E:122:PHE:CE2	2.40	0.56
31:1a:447:G:H2'	31:1a:485:G:N2	2.21	0.56
1:2A:827:U:O2'	1:2A:2068:U:N3	2.39	0.56
11:2Q:34:LEU:HD13	11:2Q:118:LEU:HB3	1.88	0.56
20:2Z:151:HIS:HA	20:2Z:170:THR:HA	1.87	0.56
28:27:13:ALA:HB2	28:27:46:VAL:HG21	1.86	0.56
31:2a:1497:G:H1'	31:2a:1518:MA6:H2	1.88	0.56
1:1A:375:C:H2'	1:1A:376:C:C6	2.40	0.56
1:1A:492:A:H2'	1:1A:493:G:O4'	2.06	0.56
1:1A:2843:G:H1	1:1A:2874:C:H42	1.51	0.56
2:1B:39:A:O2'	2:1B:46:A:N1	2.39	0.56
9:1O:12:ASP:N	9:1O:12:ASP:OD1	2.36	0.56
12:1R:2:ARG:NH1	12:1R:2:ARG:O	2.39	0.56
31:1a:556:C:H2'	31:1a:557:G:H8	1.71	0.56
31:1a:1402:4OC:HM22	31:1a:1403:C:H5'	1.88	0.56
32:1b:187:LEU:HA	32:1b:201:ILE:HB	1.86	0.56
33:1c:11:ARG:HB3	33:1c:15:THR:HB	1.87	0.56
1:2A:884:C:N3	1:2A:893:C:O2'	2.38	0.56
3:2D:61:LEU:O	3:2D:63:ARG:NH1	2.38	0.56
4:2E:19:ARG:HG2	9:2O:72:PRO:HB2	1.88	0.56
25:24:60:GLN:O	25:24:62:ARG:NH1	2.39	0.56
31:2a:544:G:OP1	34:2d:59:ARG:NH1	2.34	0.56
31:2a:742:G:OP2	45:2o:35:ARG:NH2	2.27	0.56
31:2a:1100:C:N4	31:2a:1103:C:OP1	2.38	0.56
31:2a:1183:A:O2'	31:2a:1184:G:OP1	2.22	0.56
37:2g:40:ALA:HB3	39:2i:41:VAL:HG21	1.88	0.56
42:2l:42:THR:OG1	53:2w:84:ARG:NH1	2.38	0.56
1:1A:607:U:OP1	5:1F:103:LYS:N	2.38	0.56
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.41	0.56
9:1O:97:ARG:HA	9:1O:117:LEU:HD13	1.87	0.56
10:1P:113:LYS:HA	10:1P:129:ALA:O	2.05	0.56
22:11:5:CYS:SG	22:11:8:SER:N	2.68	0.56
31:1a:1345:U:OP1	39:1i:120:ARG:NH1	2.39	0.56
1:2A:1825:A:H2'	1:2A:1826:G:H8	1.70	0.56
31:2a:591:U:H2'	31:2a:592:G:C8	2.41	0.56
31:2a:1098:C:OP1	32:2b:144:ARG:NH1	2.39	0.56
36:2f:37:VAL:HA	36:2f:65:VAL:HG12	1.86	0.56
38:2h:29:SER:HB3	38:2h:32:LYS:HG3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:2w:25:LEU:HD22	53:2w:118:VAL:HG22	1.88	0.56
1:1A:184:C:H2'	1:1A:185:U:C6	2.41	0.56
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.05	0.56
1:1A:1991:U:C2'	1:1A:1992:G:H5"	2.36	0.56
1:1A:2056:G:C2	1:1A:2057:A:C8	2.93	0.56
47:1q:43:LEU:HD12	47:1q:68:ARG:HG2	1.87	0.56
52:1v:114:VAL:HG12	52:1v:152:THR:HB	1.88	0.56
52:1v:199:ILE:HB	52:1v:200:PRO:CD	2.31	0.56
1:2A:1288:U:O2'	1:2A:1647:G:N2	2.39	0.56
1:2A:2701:C:H2'	1:2A:2702:U:H2'	1.88	0.56
41:2k:50:TYR:HD2	41:2k:60:ALA:HB2	1.70	0.56
1:1A:467:G:H8	1:1A:467:G:O5'	1.88	0.56
1:1A:2153:G:H2'	1:1A:2154:G:H8	1.71	0.56
14:1T:31:SER:HB2	14:1T:85:LYS:HG2	1.88	0.56
17:1W:19:LEU:HB3	26:15:25:LEU:HD11	1.87	0.56
21:10:15:ASP:OD1	21:10:16:SER:N	2.38	0.56
31:1a:451:A:N6	31:1a:480:U:H2'	2.21	0.56
31:1a:1025:U:O2	31:1a:1036:G:O6	2.24	0.56
41:1k:87:THR:HG22	41:1k:91:ARG:HH12	1.71	0.56
1:2A:906:G:N2	1:2A:907:U:O2	2.39	0.56
9:2O:49:ARG:HH12	31:2a:1423:G:H5'	1.70	0.56
20:2Z:108:PRO:HB3	20:2Z:144:LEU:HB2	1.87	0.56
35:2e:110:LEU:HB3	35:2e:115:VAL:HB	1.87	0.56
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.06	0.55
1:1A:911:A:H2'	11:1Q:9:TYR:OH	2.05	0.55
1:1A:1754:C:H5"	14:1T:113:LYS:HE2	1.87	0.55
11:1Q:19:GLY:O	11:1Q:99:PRO:HD2	2.06	0.55
31:1a:669:U:H2'	31:1a:670:G:H8	1.70	0.55
31:1a:1149:C:OP1	39:1i:9:ARG:NH2	2.34	0.55
52:1v:165:GLN:NE2	52:1v:259:PHE:HB3	2.21	0.55
52:1v:413:ILE:HA	52:1v:476:VAL:HG12	1.87	0.55
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.37	0.55
2:2B:74:U:H2'	2:2B:75:G:O4'	2.05	0.55
15:2U:19:LYS:HA	15:2U:22:LYS:HE3	1.87	0.55
31:2a:596:C:H2'	31:2a:597:G:H8	1.71	0.55
31:2a:729:A:H2'	31:2a:730:G:C8	2.42	0.55
31:2a:1100:C:H41	32:2b:96:ARG:HH12	1.54	0.55
31:2a:1120:G:H2'	31:2a:1121:U:C6	2.42	0.55
31:2a:1271:G:C2	31:2a:1272:G:N7	2.74	0.55
1:1A:615:G:OP2	5:1F:43:LYS:NZ	2.26	0.55
1:1A:956:G:N2	1:1A:960:A:OP2	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.42	0.55
1:1A:1876:A:H2'	1:1A:1877:A:C8	2.41	0.55
1:1A:2437:U:H2'	1:1A:2438:U:H6	1.70	0.55
4:1E:5:LEU:HD12	4:1E:51:PHE:HB2	1.88	0.55
31:1a:376:G:H5"	46:1p:5:ARG:HG2	1.88	0.55
31:1a:537:G:H5"	42:1l:113:ARG:NH1	2.21	0.55
52:1v:493:VAL:HG22	52:1v:593:ALA:HB2	1.88	0.55
1:2A:583:G:OP2	15:2U:10:ARG:NH1	2.37	0.55
1:2A:754:C:H2'	1:2A:755:C:C6	2.41	0.55
1:2A:1035:U:H3	1:2A:1120:G:H1	1.53	0.55
1:2A:1255:U:C5	5:2F:73:ALA:HA	2.41	0.55
31:2a:139:G:H2'	31:2a:140:A:H8	1.71	0.55
31:2a:1415:G:C2	31:2a:1486:G:C2	2.94	0.55
38:2h:39:LEU:HG	38:2h:44:PHE:HB2	1.87	0.55
53:2w:23:HIS:O	53:2w:27:GLY:N	2.38	0.55
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.06	0.55
1:1A:1277:G:H2'	1:1A:1278:A:H8	1.72	0.55
1:1A:1690:A:H3'	1:1A:1691:C:H6	1.71	0.55
15:1U:61:TRP:CH2	15:1U:93:LYS:HB2	2.42	0.55
31:1a:78:G:N2	31:1a:91:C:C2	2.74	0.55
31:1a:509:A:H2'	31:1a:510:A:C8	2.41	0.55
31:1a:574:A:N3	31:1a:883:C:H1'	2.21	0.55
31:1a:1307:U:OP1	43:1m:101:GLN:NE2	2.35	0.55
31:1a:1414:U:H3	31:1a:1486:G:H1	1.53	0.55
52:1v:129:LYS:HA	52:1v:253:LEU:HD21	1.88	0.55
53:1w:36:ALA:HA	53:1w:39:LEU:HB2	1.88	0.55
1:2A:2340:G:H2'	1:2A:2341:G:H8	1.71	0.55
11:2Q:39:PRO:HD3	11:2Q:99:PRO:HG3	1.89	0.55
31:2a:542:G:OP1	34:2d:10:ARG:NH2	2.38	0.55
31:2a:1318:A:OP1	49:2s:3:ARG:NH2	2.32	0.55
52:2v:509:HIS:HB3	52:2v:571:SER:H	1.72	0.55
1:1A:256:A:H2'	1:1A:257:A:H8	1.70	0.55
1:1A:279:C:N4	1:1A:361:G:H1	2.04	0.55
1:1A:918:A:N6	1:1A:919:G:N3	2.54	0.55
1:1A:2224:G:OP1	3:1D:268:ARG:NE	2.40	0.55
3:1D:106:ILE:HD11	3:1D:143:HIS:HD2	1.70	0.55
3:1D:261:LYS:HZ1	3:1D:263:ARG:CZ	2.19	0.55
5:1F:12:LEU:HD12	5:1F:124:LEU:HD21	1.89	0.55
20:1Z:68:PRO:O	20:1Z:91:LEU:N	2.34	0.55
28:17:9:ARG:NH2	28:17:47:ARG:HD2	2.20	0.55
31:1a:983:A:N1	31:1a:1222:G:N2	2.48	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:1248:A:N3	39:1i:70:LYS:HE2	2.21	0.55
46:1p:6:LEU:HB3	46:1p:17:TYR:CD1	2.42	0.55
1:2A:53:A:H61	1:2A:117:G:H1'	1.71	0.55
1:2A:947:G:H2'	1:2A:948:G:H8	1.70	0.55
1:2A:1378:A:O2'	1:2A:1380:G:N7	2.33	0.55
1:2A:2749:A:OP2	1:2A:2750:A:O2'	2.21	0.55
3:2D:18:VAL:HG12	3:2D:211:ARG:HH12	1.70	0.55
49:2s:27:GLU:HB2	49:2s:28:LYS:HD3	1.88	0.55
52:2v:494:GLU:HG2	52:2v:511:LYS:HG2	1.88	0.55
1:1A:16:G:H2'	1:1A:17:G:H8	1.72	0.55
1:1A:426:C:H2'	1:1A:427:U:H6	1.71	0.55
1:1A:1254:A:H5"	1:1A:1255:U:H5"	1.89	0.55
1:1A:1341:U:H5'	18:1X:57:LEU:HB3	1.89	0.55
1:1A:1927:A:H2'	1:1A:1928:A:C8	2.41	0.55
1:1A:2156:G:H2'	1:1A:2157:G:C2	2.41	0.55
1:1A:2399:G:H1	1:1A:2417:C:H42	1.54	0.55
1:1A:2884:U:H2'	1:1A:2885:C:O4'	2.06	0.55
9:1O:120:GLU:HG2	9:1O:122:LEU:HG	1.88	0.55
31:1a:108:G:P	31:1a:326:G:H22	2.30	0.55
41:1k:29:ILE:HG23	41:1k:44:SER:HB3	1.88	0.55
3:2D:210:GLY:O	3:2D:213:ARG:N	2.39	0.55
34:2d:173:TRP:CZ3	34:2d:193:ASP:HB3	2.42	0.55
52:2v:606:MET:HG3	52:2v:649:LEU:HB2	1.88	0.55
54:2y:44:G:O2'	54:2y:45:U:OP1	2.22	0.55
2:1B:89:G:H2'	2:1B:90:A:C8	2.41	0.55
8:1N:75:TYR:HA	8:1N:81:GLY:O	2.07	0.55
17:1W:36:LEU:HD13	17:1W:48:ALA:HA	1.88	0.55
19:1Y:35:TYR:CD2	19:1Y:69:ALA:HB3	2.41	0.55
54:1y:5:G:N2	54:1y:68:C:N3	2.52	0.55
1:2A:98:G:H5'	23:22:3:LEU:HG	1.89	0.55
1:2A:403:U:H4'	1:2A:404:C:H5'	1.87	0.55
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.41	0.55
2:2B:39:A:O2'	2:2B:46:A:N1	2.39	0.55
5:2F:116:ASP:OD2	10:2P:1:MET:N	2.33	0.55
7:2H:15:VAL:HG23	7:2H:28:GLY:HA3	1.87	0.55
31:2a:595:G:H1'	31:2a:596:C:H5	1.71	0.55
31:2a:1075:C:O2'	32:2b:175:ARG:NH2	2.40	0.55
33:2c:7:PRO:HG2	33:2c:201:TYR:HE1	1.70	0.55
52:2v:99:ARG:HD2	52:2v:402:ILE:HG23	1.88	0.55
52:2v:529:ILE:HG23	52:2v:533:VAL:HG23	1.88	0.55
1:1A:2070:G:H2'	1:1A:2071:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1O:13:ASN:HD21	9:1O:96:THR:H	1.55	0.55
10:1P:30:THR:HG23	10:1P:34:GLY:O	2.06	0.55
14:1T:24:PRO:HA	14:1T:49:VAL:HG23	1.88	0.55
15:1U:16:LYS:O	15:1U:20:LEU:HG	2.07	0.55
31:1a:975:A:N1	40:1j:48:THR:HB	2.22	0.55
31:1a:1024:G:H2'	31:1a:1025:U:H5"	1.89	0.55
31:1a:1030:C:N3	31:1a:1031:G:C2	2.75	0.55
31:1a:1268:A:N3	31:1a:1326:C:O2'	2.39	0.55
41:1k:27:ASN:OD1	41:1k:28:THR:N	2.36	0.55
52:1v:489:LYS:HE2	52:1v:598:ASP:N	2.21	0.55
53:1w:3:LEU:HD22	53:1w:3:LEU:H	1.72	0.55
54:1x:28:G:H1	54:1x:42:C:N4	2.05	0.55
1:2A:1197:G:N2	1:2A:1249:U:O2'	2.39	0.55
1:2A:1224:C:O2'	16:2V:86:GLY:N	2.26	0.55
6:2G:36:LYS:HE3	6:2G:160:VAL:HG11	1.89	0.55
11:2Q:42:ILE:HD11	11:2Q:127:ILE:HD13	1.88	0.55
18:2X:92:LEU:C	18:2X:94:GLY:H	2.15	0.55
31:2a:501:C:H2'	31:2a:502:G:C8	2.42	0.55
31:2a:729:A:H2'	31:2a:730:G:H8	1.71	0.55
31:2a:1412:C:H2'	31:2a:1413:A:C8	2.42	0.55
34:2d:173:TRP:CD1	34:2d:189:PRO:HG3	2.42	0.55
42:2l:102:ARG:HE	42:2l:109:GLY:HA2	1.70	0.55
1:1A:458:G:O2'	1:1A:469:G:O6	2.25	0.55
1:1A:910:A:H62	11:1Q:12:GLN:HA	1.71	0.55
4:1E:11:MET:HG2	4:1E:24:THR:HB	1.88	0.55
4:1E:152:LYS:HD3	8:1N:78:TYR:CE2	2.42	0.55
14:1T:4:GLY:O	14:1T:8:LYS:HG2	2.07	0.55
1:2A:839:U:H2'	1:2A:840:C:H6	1.70	0.55
1:2A:1695:G:H1'	3:2D:8:PRO:O	2.07	0.55
6:2G:15:VAL:HA	6:2G:175:LEU:HD23	1.88	0.55
17:2W:11:ARG:HD2	17:2W:11:ARG:C	2.31	0.55
32:2b:30:ARG:HH21	32:2b:194:PRO:HB2	1.72	0.55
54:2y:25:C:O2'	54:2y:26:A:H8	1.89	0.55
2:1B:73:A:N1	20:1Z:34:ASN:ND2	2.55	0.55
31:1a:495:A:H1'	31:1a:496:A:H5"	1.88	0.55
46:1p:9:PHE:HE2	46:1p:18:ARG:HD2	1.71	0.55
1:2A:1525:G:H2'	1:2A:1526:G:C8	2.42	0.55
1:2A:1942:5MC:H1'	53:2w:133:ARG:HE	1.70	0.55
14:2T:127:ALA:C	14:2T:129:ARG:H	2.14	0.55
1:1A:2437:U:H2'	1:1A:2438:U:C6	2.42	0.55
1:1A:2590:A:H2'	1:1A:2591:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2648:C:H42	1:1A:2672:G:H1	1.55	0.55
15:1U:83:LEU:HD12	15:1U:113:ALA:HB2	1.88	0.55
31:1a:417:C:H42	31:1a:426:G:H1	1.53	0.55
31:1a:1359:C:OP2	44:1n:35:ARG:NE	2.40	0.55
52:1v:122:TRP:HE1	52:1v:132:ARG:HH21	1.55	0.55
1:2A:816:C:H2'	1:2A:817:C:H6	1.72	0.55
1:2A:1384:A:N3	1:2A:1405:U:H1'	2.21	0.55
31:2a:1264:C:H42	31:2a:1271:G:H1	1.53	0.55
32:2b:188:ALA:HB1	32:2b:192:SER:OG	2.07	0.55
49:2s:40:ILE:HG12	49:2s:71:LEU:HD12	1.88	0.55
52:2v:139:MET:HE1	52:2v:146:LEU:N	2.22	0.55
1:1A:631:A:OP1	10:1P:65:ARG:NH1	2.39	0.54
1:1A:751:A:C6	1:1A:789:A:C5	2.95	0.54
1:1A:1359:A:OP2	1:1A:1371:G:N2	2.30	0.54
11:1Q:54:MET:O	11:1Q:57:HIS:N	2.37	0.54
17:1W:1:MET:HB3	17:1W:64:MET:HE3	1.89	0.54
18:1X:11:PRO:HD3	23:12:37:PHE:CD1	2.41	0.54
27:16:18:ARG:HD2	27:16:42:TRP:CG	2.42	0.54
31:1a:1229:A:O2'	54:1x:30:G:OP1	2.25	0.54
31:1a:1249:C:O2'	39:1i:73:GLN:NE2	2.39	0.54
32:1b:98:LEU:O	32:1b:101:MET:HG3	2.07	0.54
34:1d:8:VAL:HA	34:1d:11:LEU:HD13	1.87	0.54
36:1f:50:TYR:CE2	48:1r:77:GLY:HA2	2.42	0.54
36:1f:78:GLU:O	36:1f:81:ILE:HG22	2.07	0.54
52:1v:674:ASP:HB3	52:1v:675:HIS:HD2	1.72	0.54
1:2A:459:U:OP2	28:27:39:ARG:NH1	2.40	0.54
1:2A:918:A:O2'	2:2B:97:G:N2	2.39	0.54
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.41	0.54
1:2A:2030:A:H4'	1:2A:2031:A:H8	1.72	0.54
3:2D:133:LEU:HD23	3:2D:136:ILE:HD12	1.88	0.54
10:2P:126:VAL:HG13	10:2P:146:VAL:HB	1.88	0.54
15:2U:94:ASN:HA	15:2U:97:ASP:HB3	1.89	0.54
20:2Z:4:ARG:NE	20:2Z:60:GLU:OE2	2.37	0.54
25:24:1:MET:HE2	25:24:6:HIS:CD2	2.42	0.54
31:2a:266:G:H5"	31:2a:268:C:H41	1.72	0.54
31:2a:1097:C:O2'	31:2a:1169:A:N3	2.40	0.54
1:1A:296:C:H2'	1:1A:297:C:H6	1.70	0.54
1:1A:1308:A:H2'	1:1A:1309:G:O4'	2.07	0.54
11:1Q:16:ARG:HG3	11:1Q:18:LYS:HG3	1.89	0.54
31:1a:108:G:C6	50:1t:15:ARG:HG2	2.42	0.54
32:1b:53:ARG:HH12	32:1b:199:TYR:HA	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:1s:33:THR:HG21	49:1s:71:LEU:HD13	1.89	0.54
50:1t:13:LEU:HD12	50:1t:14:LYS:H	1.72	0.54
52:1v:546:ILE:HG23	52:1v:590:ILE:HG13	1.89	0.54
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.42	0.54
1:2A:2393:A:H5"	10:2P:63:PRO:HB3	1.90	0.54
13:2S:37:ALA:HB1	13:2S:73:LEU:HD22	1.89	0.54
31:2a:952:U:H2'	31:2a:953:G:C8	2.39	0.54
39:2i:50:LEU:HD12	39:2i:51:ARG:HG3	1.89	0.54
40:2j:61:GLU:OE2	44:2n:58:LYS:NZ	2.34	0.54
1:1A:107:C:H2'	1:1A:108:U:H6	1.71	0.54
1:1A:1077:A:H2'	1:1A:1078:U:H4'	1.89	0.54
1:1A:1831:G:H1	1:1A:1974:C:N4	2.04	0.54
5:1F:110:LEU:HD21	5:1F:181:LEU:HD23	1.89	0.54
15:1U:89:GLU:HG3	16:1V:50:PRO:HB3	1.89	0.54
31:1a:192:U:O2'	50:1t:60:GLU:OE1	2.21	0.54
31:1a:599:C:H4'	38:1h:130:GLY:C	2.32	0.54
31:1a:781:A:H4'	31:1a:1522:U:O2'	2.08	0.54
52:1v:276:VAL:HA	52:1v:280:LEU:HD23	1.89	0.54
52:1v:354:ARG:HB2	52:1v:378:VAL:HB	1.89	0.54
1:2A:171:G:H2'	1:2A:172:C:C6	2.42	0.54
1:2A:1184:G:H5'	24:23:29:ARG:HH11	1.73	0.54
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.43	0.54
1:2A:1963:U:O4	53:2w:131:ASN:HB2	2.07	0.54
31:2a:130:A:H1'	31:2a:263:A:O2'	2.07	0.54
32:2b:24:TRP:HZ3	32:2b:29:ALA:HB2	1.73	0.54
33:2c:153:VAL:HG22	33:2c:198:VAL:HG22	1.90	0.54
1:1A:821:A:H2'	1:1A:946:G:H5"	1.90	0.54
1:1A:2340:G:H2'	1:1A:2341:G:C8	2.42	0.54
1:1A:2478:A:OP2	30:19:2:LYS:NZ	2.33	0.54
1:1A:2637:U:OP1	4:1E:82:ARG:NH1	2.40	0.54
14:1T:20:PRO:HB2	14:1T:88:ILE:HD11	1.88	0.54
38:1h:19:VAL:HG23	38:1h:21:LYS:HG2	1.90	0.54
1:2A:668:G:H5'	1:2A:669:G:OP2	2.07	0.54
1:2A:1805:U:H5"	3:2D:250:TRP:CE2	2.43	0.54
6:2G:47:LYS:HG3	6:2G:48:GLU:H	1.73	0.54
29:28:58:ILE:HA	29:28:61:LEU:HD12	1.89	0.54
33:2c:34:LEU:HD21	33:2c:38:ARG:HH21	1.72	0.54
45:2o:42:HIS:CE1	45:2o:46:HIS:HD2	2.26	0.54
46:2p:25:ARG:HB2	46:2p:25:ARG:NH1	2.22	0.54
52:2v:-63:ILE:HG12	52:2v:-49:VAL:HG22	1.88	0.54
52:2v:191:ASP:O	52:2v:266:ASN:ND2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:2v:253:LEU:HD22	52:2v:518:PRO:HG2	1.89	0.54
53:2w:38:LEU:HD13	53:2w:83:ILE:HD12	1.89	0.54
1:1A:1864:U:H2'	1:1A:1865:G:C8	2.43	0.54
12:1R:118:GLU:H	12:1R:118:GLU:CD	2.16	0.54
20:1Z:24:LEU:HD11	20:1Z:84:GLU:C	2.32	0.54
25:14:24:THR:OG1	25:14:25:TYR:N	2.40	0.54
1:2A:144:C:H2'	1:2A:145:G:C8	2.43	0.54
1:2A:863:A:P	11:2Q:22:LYS:HB3	2.47	0.54
1:2A:1259:G:H2'	1:2A:1260:G:C8	2.42	0.54
1:2A:1326:U:O2'	1:2A:2010:G:O2'	2.24	0.54
1:2A:2419:U:H2'	1:2A:2420:C:H6	1.73	0.54
11:2Q:39:PRO:HB3	11:2Q:99:PRO:HD3	1.89	0.54
31:2a:983:A:O2'	31:2a:1049:U:O3'	2.25	0.54
31:2a:1004:A:H5"	31:2a:1024:G:H22	1.72	0.54
45:2o:26:GLU:OE2	45:2o:77:ARG:NE	2.37	0.54
52:2v:481:VAL:HG13	52:2v:483:TYR:CE2	2.43	0.54
53:2w:114:LEU:HB3	53:2w:183:ILE:HD13	1.87	0.54
8:1N:56:ASN:N	8:1N:125:GLY:O	2.32	0.54
31:1a:260:G:H2'	31:1a:261:U:C6	2.43	0.54
31:1a:376:G:H2'	31:1a:377:G:C8	2.43	0.54
31:1a:1220:G:H1'	49:1s:52:TYR:HD2	1.71	0.54
52:1v:-15:ARG:O	52:1v:-11:LYS:N	2.39	0.54
52:1v:20:HIS:HE1	52:1v:116:PRO:HD2	1.72	0.54
1:2A:233:A:H61	1:2A:428:A:H61	1.56	0.54
3:2D:174:ILE:HG13	3:2D:184:LYS:HG2	1.90	0.54
15:2U:27:LEU:O	15:2U:31:SER:N	2.39	0.54
31:2a:1410:G:H2'	31:2a:1411:C:C6	2.43	0.54
32:2b:80:ILE:HD13	32:2b:211:ILE:HB	1.89	0.54
52:2v:605:ILE:HD11	52:2v:646:PHE:HB3	1.89	0.54
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	1.89	0.54
6:1G:137:GLU:HB2	6:1G:140:ILE:HG12	1.89	0.54
13:1S:48:LEU:HD22	13:1S:82:ILE:HD11	1.88	0.54
31:1a:78:G:C2	31:1a:91:C:C4	2.96	0.54
31:1a:939:G:O2'	31:1a:1375:A:N3	2.35	0.54
31:1a:1510:U:H2'	31:1a:1511:G:C8	2.43	0.54
43:1m:29:ARG:HA	43:1m:32:GLU:HB2	1.89	0.54
1:2A:132:G:H2'	1:2A:133:C:C6	2.43	0.54
1:2A:570:G:H2'	1:2A:2030:A:C6	2.42	0.54
1:2A:652(D):C:H6	1:2A:652(D):C:O5'	1.91	0.54
1:2A:1335:U:OP1	18:2X:65:ARG:NH1	2.40	0.54
20:2Z:26:GLY:HA3	20:2Z:86:VAL:HG23	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:235:C:H2'	31:2a:236:G:H8	1.73	0.54
45:2o:39:LEU:HD13	45:2o:56:LEU:HB2	1.89	0.54
46:2p:22:THR:HA	46:2p:33:ILE:HG13	1.90	0.54
52:2v:322:VAL:HB	52:2v:378:VAL:HG11	1.90	0.54
52:2v:608:VAL:HG21	52:2v:652:MET:HE2	1.90	0.54
1:1A:857:C:H5"	21:10:77:ARG:HH21	1.73	0.54
13:1S:66:ALA:O	13:1S:69:VAL:HG12	2.08	0.54
14:1T:112:ARG:HG2	14:1T:115:ARG:HH21	1.71	0.54
51:1u:5:ASP:O	51:1u:11:GLY:HA3	2.08	0.54
52:1v:635:GLU:O	52:1v:641:GLN:HG3	2.08	0.54
52:1v:659:LEU:O	52:1v:663:THR:OG1	2.24	0.54
1:2A:139:G:H2'	1:2A:140:G:N7	2.22	0.54
1:2A:1689:A:OP2	1:2A:1698:A:N6	2.41	0.54
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.22	0.54
1:2A:2082:A:H2'	1:2A:2083:G:O4'	2.08	0.54
4:2E:104:VAL:HG11	4:2E:188:VAL:HG22	1.89	0.54
31:2a:138:G:H2'	31:2a:139:G:C8	2.42	0.54
31:2a:316:G:OP2	31:2a:351:G:O2'	2.25	0.54
31:2a:1331:G:O6	51:2u:7:ARG:NH1	2.40	0.54
52:2v:-53:ASP:H	52:2v:-50:GLN:NE2	2.06	0.54
52:2v:329:ARG:HG2	52:2v:374:LEU:HB3	1.89	0.54
22:11:35:THR:OG1	22:11:35:THR:O	2.23	0.54
24:13:12:PRO:HA	24:13:15:TYR:HD2	1.73	0.54
29:18:17:THR:HG21	29:18:21:LYS:HB2	1.89	0.54
32:1b:9:GLU:HA	32:1b:48:MET:HE1	1.90	0.54
32:1b:16:HIS:HB2	32:1b:204:ASN:CB	2.38	0.54
47:1q:15:MET:HE1	47:1q:43:LEU:HD22	1.90	0.54
48:1r:32:ARG:HA	48:1r:69:THR:HG21	1.89	0.54
1:2A:54:G:O2'	28:27:35:ARG:NE	2.38	0.54
1:2A:1262:A:OP2	17:2W:99:ARG:NH2	2.41	0.54
1:2A:2099:U:H3	1:2A:2190:G:H1	1.56	0.54
1:2A:2432:A:C8	22:21:33:LYS:HD2	2.43	0.54
18:2X:26:TYR:HB3	18:2X:92:LEU:HD22	1.89	0.54
18:2X:44:GLU:HG2	18:2X:49:VAL:O	2.07	0.54
31:2a:737:A:H2'	31:2a:738:C:C6	2.43	0.54
31:2a:1272:G:N2	31:2a:1273:G:C4	2.76	0.54
31:2a:1457:G:H2'	31:2a:1458:G:C8	2.43	0.54
31:2a:1494:G:H4'	31:2a:1494:G:OP1	2.07	0.54
1:1A:38:A:H2'	1:1A:39:C:C6	2.43	0.54
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.08	0.54
1:1A:717:G:H2'	1:1A:718:A:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1007:C:OP1	8:1N:35:ARG:NH1	2.41	0.54
1:1A:1628:G:H2'	1:1A:1629:U:C6	2.43	0.54
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.43	0.54
15:1U:52:ARG:HA	15:1U:55:ARG:HG3	1.90	0.54
31:1a:542:G:H5'	34:1d:41:GLY:HA3	1.90	0.54
31:1a:977:A:O2'	31:1a:981:U:N3	2.33	0.54
31:1a:1410:G:H2'	31:1a:1411:C:C6	2.42	0.54
1:2A:492:A:H2'	1:2A:493:G:O4'	2.09	0.54
1:2A:667:U:H1'	29:28:2:PRO:HD2	1.89	0.54
1:2A:856:C:H2'	1:2A:857:C:C6	2.43	0.54
1:2A:1184:G:OP1	24:23:30:ARG:NH2	2.40	0.54
1:2A:1336:A:H2'	1:2A:1337:G:H8	1.72	0.54
1:2A:2343:C:O2'	1:2A:2373:G:O2'	2.23	0.54
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.43	0.54
31:2a:1406:U:O2	31:2a:1517:G:N2	2.35	0.54
34:2d:99:SER:OG	34:2d:140:VAL:O	2.24	0.54
35:2e:102:ALA:O	35:2e:107:ARG:NH2	2.40	0.54
42:2l:70:ILE:HG12	42:2l:100:ILE:HD12	1.88	0.54
1:1A:184:C:H2'	1:1A:185:U:H6	1.72	0.53
1:1A:1035:U:OP1	7:1H:59:ARG:NH2	2.41	0.53
1:1A:1342:A:N7	1:1A:1397:U:C2	2.76	0.53
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.08	0.53
1:1A:1797:C:O3'	3:1D:259:THR:HG22	2.08	0.53
1:1A:2171:A:O2'	1:1A:2172:U:H5"	2.09	0.53
1:1A:2750:A:OP2	7:1H:62:LYS:NZ	2.32	0.53
5:1F:125:LEU:HD21	5:1F:199:TRP:CD2	2.43	0.53
11:1Q:60:ARG:HH12	20:1Z:182:LYS:HB2	1.73	0.53
19:1Y:13:VAL:HG12	19:1Y:74:PRO:HA	1.89	0.53
31:1a:653:A:OP1	38:1h:56:LYS:NZ	2.37	0.53
31:1a:1077:G:C6	31:1a:1081:G:C6	2.96	0.53
31:1a:1133:G:H1	31:1a:1141:C:H42	1.55	0.53
52:1v:437:THR:HB	52:1v:454:MET:HE3	1.89	0.53
10:2P:126:VAL:HG12	10:2P:148:LEU:HB3	1.88	0.53
31:2a:977:A:O2'	31:2a:981:U:N3	2.40	0.53
36:2f:70:ASP:OD1	36:2f:70:ASP:N	2.39	0.53
53:2w:144:ALA:HA	53:2w:149:LEU:HG	1.91	0.53
1:1A:415:A:H2'	1:1A:416:C:H6	1.74	0.53
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.24	0.53
21:10:63:VAL:HG21	21:10:83:PRO:HG3	1.91	0.53
27:16:34:LEU:H	27:16:51:GLU:HG2	1.72	0.53
32:1b:193:ASP:OD2	32:1b:196:LEU:HB2	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1w:65:THR:HG22	53:1w:66:LEU:H	1.74	0.53
1:2A:675:A:H4'	5:2F:67:GLN:OE1	2.09	0.53
1:2A:2427:C:H5"	1:2A:2429:G:H5'	1.90	0.53
18:2X:8:ILE:HA	18:2X:30:VAL:HG12	1.89	0.53
20:2Z:70:LEU:HD11	20:2Z:98:MET:HE3	1.91	0.53
31:2a:91:C:H2'	31:2a:92:C:C6	2.44	0.53
32:2b:79:ASP:O	32:2b:83:MET:HG2	2.08	0.53
33:2c:6:HIS:HD2	33:2c:8:ILE:H	1.56	0.53
34:2d:108:LEU:HD21	34:2d:183:GLY:HA3	1.90	0.53
44:2n:9:LYS:HG3	44:2n:12:ARG:HE	1.73	0.53
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.23	0.53
1:1A:2402:C:H1'	1:1A:2403:C:H5	1.74	0.53
9:1O:105:GLU:OE1	9:1O:105:GLU:N	2.41	0.53
31:1a:21:G:H2'	31:1a:22:G:C8	2.43	0.53
31:1a:1240:U:OP1	37:1g:119:ARG:NH1	2.41	0.53
34:1d:11:LEU:HD23	34:1d:66:ARG:HB3	1.90	0.53
42:1l:40:VAL:HG21	42:1l:78:GLN:HA	1.90	0.53
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.07	0.53
1:2A:1312:U:OP2	18:2X:63:LYS:NZ	2.34	0.53
1:2A:2689:U:P	1:2A:2719:G:H22	2.32	0.53
8:2N:38:HIS:CE1	8:2N:39:ARG:HG3	2.43	0.53
9:2O:73:ASP:OD2	14:2T:32:TYR:OH	2.20	0.53
31:2a:1011:G:H1	31:2a:1018:C:N4	2.06	0.53
31:2a:1226:C:H5'	43:2m:96:LEU:HD22	1.90	0.53
52:2v:82:ILE:HD12	52:2v:101:LEU:HD23	1.90	0.53
52:2v:99:ARG:HH11	52:2v:100:VAL:HG22	1.73	0.53
52:2v:400:GLU:O	52:2v:402:ILE:N	2.40	0.53
1:1A:466:A:OP1	28:17:34:ARG:NH1	2.41	0.53
4:1E:55:ASN:HB3	4:1E:58:ARG:HD2	1.90	0.53
11:1Q:8:LYS:HA	20:1Z:197:ILE:HD12	1.90	0.53
25:14:43:TYR:O	25:14:45:GLY:N	2.42	0.53
52:1v:444:PRO:HG2	52:1v:552:SER:HB2	1.89	0.53
54:1x:58:A:C2	54:1x:60:U:H2'	2.44	0.53
1:2A:82:G:N1	1:2A:103:A:OP2	2.31	0.53
1:2A:1837:C:OP1	31:2a:784:C:H4'	2.09	0.53
2:2B:16:G:H1	2:2B:68:C:H42	1.55	0.53
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.35	0.53
3:2D:222:ARG:HH12	3:2D:224:ALA:HB3	1.73	0.53
11:2Q:16:ARG:HG2	11:2Q:18:LYS:HG2	1.89	0.53
50:2t:50:GLU:HB2	50:2t:99:LEU:HD22	1.91	0.53
1:1A:493:G:H2'	1:1A:494:G:O4'	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:615:G:OP1	5:1F:40:GLN:NE2	2.42	0.53
1:1A:647:G:N3	1:1A:2350:C:O2'	2.41	0.53
1:1A:2153:G:H2'	1:1A:2154:G:C8	2.43	0.53
1:1A:2181:G:O2'	1:1A:2182:G:OP1	2.26	0.53
1:1A:2398:U:H2'	1:1A:2399:G:H8	1.73	0.53
1:1A:2533:A:H2'	1:1A:2534:A:O4'	2.08	0.53
1:1A:2552:2MU:O5'	1:1A:2552:2MU:H6	2.09	0.53
21:10:11:ARG:O	21:10:14:ARG:NH2	2.41	0.53
31:1a:1401:G:C2	31:1a:1402:4OC:H1'	2.43	0.53
49:1s:41:VAL:HG12	49:1s:43:GLU:H	1.73	0.53
1:2A:795:C:H2'	1:2A:796:C:C6	2.44	0.53
1:2A:2044:C:H42	1:2A:2624:G:H1	1.56	0.53
3:2D:182:LEU:HB2	3:2D:271:ILE:HB	1.90	0.53
3:2D:233:HIS:CE1	3:2D:246:PRO:HA	2.43	0.53
12:2R:81:ASP:N	12:2R:81:ASP:OD1	2.39	0.53
31:2a:444:C:H2'	31:2a:445:G:C8	2.43	0.53
33:2c:134:ILE:HD11	33:2c:153:VAL:HG23	1.89	0.53
33:2c:172:ARG:HH21	33:2c:174:PRO:HG3	1.72	0.53
49:2s:53:ASN:HB3	49:2s:75:ALA:HB1	1.91	0.53
52:2v:217:VAL:HA	52:2v:220:ALA:HB3	1.90	0.53
1:1A:42:G:H2'	1:1A:43:A:O4'	2.07	0.53
1:1A:510:C:H2'	1:1A:511:U:O4'	2.08	0.53
1:1A:839:U:O4	1:1A:939:G:O6	2.27	0.53
1:1A:910:A:C6	11:1Q:13:GLN:HG3	2.43	0.53
1:1A:1392:A:C6	1:1A:1393:A:N1	2.77	0.53
1:1A:2304:G:O2'	6:1G:156:ASP:OD1	2.26	0.53
1:1A:2327:A:H5"	20:1Z:201:LYS:HD3	1.91	0.53
7:1H:3:ARG:HH21	7:1H:65:HIS:HB3	1.74	0.53
17:1W:13:SER:HA	17:1W:99:ARG:HB2	1.91	0.53
31:1a:10:A:OP2	35:1e:126:ARG:HD2	2.07	0.53
31:1a:376:G:H2'	31:1a:377:G:H8	1.73	0.53
31:1a:405:U:O4	34:1d:2:GLY:N	2.42	0.53
38:1h:86:ILE:HD11	38:1h:136:GLU:HG2	1.90	0.53
43:1m:86:CYS:HA	49:1s:73:GLU:O	2.09	0.53
1:2A:1590:U:H2'	1:2A:1591:G:C8	2.43	0.53
1:2A:1971:A:C8	3:2D:241:PRO:HB3	2.43	0.53
1:2A:2252:G:H2'	1:2A:2253:G:C8	2.44	0.53
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.42	0.53
2:2B:16:G:H1	2:2B:68:C:N4	2.06	0.53
31:2a:509:A:O2'	31:2a:510:A:OP1	2.20	0.53
31:2a:665:A:H1'	31:2a:733:A:H5'	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:1053:G:H4'	31:2a:1054:C:H3'	1.91	0.53
32:2b:60:ASP:HA	32:2b:63:MET:HE2	1.90	0.53
35:2e:5:ASP:N	35:2e:5:ASP:OD1	2.42	0.53
54:2y:19:G:H4'	54:2y:20:U:OP2	2.06	0.53
1:1A:133:C:H42	1:1A:146:G:H1	1.54	0.53
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.44	0.53
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.72	0.53
1:1A:1104:C:H2'	1:1A:1105:U:C6	2.43	0.53
1:1A:1187:G:H5"	16:1V:81:TYR:CE1	2.43	0.53
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.39	0.53
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.43	0.53
6:1G:142:PRO:HB2	25:14:31:ILE:HG21	1.90	0.53
31:1a:773:G:H2'	31:1a:774:G:O4'	2.08	0.53
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.26	0.53
3:2D:246:PRO:O	3:2D:254:THR:HG22	2.09	0.53
24:23:16:PRO:HG2	24:23:19:GLN:NE2	2.13	0.53
31:2a:258:G:H2'	31:2a:259:G:C8	2.44	0.53
31:2a:879:C:H6	31:2a:879:C:O5'	1.92	0.53
32:2b:28:PHE:HD1	32:2b:194:PRO:HG3	1.73	0.53
34:2d:140:VAL:HG13	34:2d:144:ASP:HB2	1.89	0.53
1:1A:436:C:H2'	1:1A:437:G:C8	2.44	0.53
1:1A:709:U:H2'	1:1A:710:G:C8	2.44	0.53
1:1A:840:C:OP2	1:1A:932:G:N2	2.40	0.53
1:1A:878:A:N6	1:1A:899:A:O2'	2.21	0.53
1:1A:1756:G:H4'	1:1A:1758:G:O4'	2.09	0.53
2:1B:52:A:N6	13:1S:33:LYS:HG3	2.23	0.53
3:1D:16:MET:HG3	3:1D:207:GLY:HA3	1.90	0.53
31:1a:900:A:H2'	31:1a:901:A:C8	2.44	0.53
31:1a:908:A:H2'	31:1a:909:A:C8	2.44	0.53
31:1a:1210:C:N4	31:1a:1211:U:O4	2.41	0.53
31:1a:1496:C:H2'	31:1a:1497:G:C8	2.44	0.53
32:1b:16:HIS:CG	32:1b:17:PHE:N	2.76	0.53
35:1e:78:HIS:HB2	38:1h:104:ARG:HD2	1.89	0.53
52:1v:228:MET:O	52:1v:232:LEU:HD23	2.08	0.53
53:1w:120:GLN:NE2	53:1w:124:GLU:OE2	2.42	0.53
54:1x:8:4SU:O2	54:1x:8:4SU:H2'	2.09	0.53
1:2A:144:C:H2'	1:2A:145:G:H8	1.74	0.53
1:2A:1754:C:H5"	14:2T:113:LYS:HE2	1.91	0.53
1:2A:2251:OMG:C8	1:2A:2450:A:H4'	2.44	0.53
8:2N:22:THR:HB	8:2N:25:ARG:HB2	1.91	0.53
20:2Z:186:GLU:O	20:2Z:190:GLU:N	2.36	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:1226:C:H41	43:2m:104:ARG:HG2	1.73	0.53
31:2a:1426:C:H42	31:2a:1474:G:H1	1.56	0.53
46:2p:13:HIS:O	46:2p:42:ARG:NH1	2.41	0.53
48:2r:45:SER:HB3	48:2r:51:LEU:HD21	1.90	0.53
52:2v:411:VAL:O	52:2v:451:ILE:N	2.42	0.53
53:2w:161:ILE:O	53:2w:165:THR:OG1	2.21	0.53
54:2x:28:G:H1	54:2x:42:C:N4	2.06	0.53
1:1A:259:G:HO2'	1:1A:621:A:HO2'	1.56	0.53
1:1A:755:C:H2'	1:1A:756:C:C6	2.44	0.53
1:1A:1295:C:H2'	1:1A:1296:G:C8	2.43	0.53
1:1A:2578:G:N7	4:1E:140:SER:HB2	2.24	0.53
31:1a:150:C:H42	31:1a:171:A:H62	1.56	0.53
31:1a:401:C:OP1	34:1d:73:ARG:NH2	2.34	0.53
31:1a:1219:U:HO2'	49:1s:34:TRP:CD1	2.27	0.53
52:1v:-18:ALA:O	52:1v:-14:ALA:N	2.39	0.53
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.25	0.53
1:2A:908:C:OP2	11:2Q:22:LYS:NZ	2.36	0.53
1:2A:1368:G:H2'	1:2A:1369:G:H8	1.74	0.53
1:2A:2009:G:H1'	12:2R:107:ASP:O	2.09	0.53
26:25:49:CYS:SG	26:25:51:TYR:HD2	2.32	0.53
28:27:12:ARG:NH2	28:27:44:PRO:HB3	2.24	0.53
31:2a:340:U:H2'	31:2a:341:C:C6	2.44	0.53
35:2e:68:GLU:HG2	35:2e:70:PRO:HG3	1.91	0.53
43:2m:10:PRO:HD2	43:2m:18:ALA:HA	1.91	0.53
54:2y:37:MIA:H2'	54:2y:38:A:C8	2.44	0.53
3:1D:133:LEU:HA	3:1D:136:ILE:HD12	1.89	0.53
3:1D:210:GLY:O	3:1D:213:ARG:N	2.41	0.53
23:12:28:LYS:HD2	23:12:60:LEU:HD11	1.90	0.53
29:18:6:THR:HG23	29:18:64:TYR:HD2	1.74	0.53
41:1k:79:SER:HA	41:1k:104:GLN:HB3	1.91	0.53
52:1v:134:ALA:HB3	52:1v:258:VAL:HG22	1.89	0.53
1:2A:117:G:OP2	1:2A:119:A:O2'	2.24	0.53
1:2A:1919:A:O2'	31:2a:1517:G:N3	2.37	0.53
1:2A:1920:OMC:HM22	1:2A:1921:G:H5'	1.90	0.53
11:2Q:55:VAL:HG21	20:2Z:183:LEU:HD13	1.91	0.53
14:2T:55:ASN:O	14:2T:58:ASN:N	2.42	0.53
31:2a:107:G:OP1	31:2a:325:A:N6	2.42	0.53
31:2a:1072:G:H2'	31:2a:1073:U:C6	2.44	0.53
36:2f:11:ASN:HB3	36:2f:14:LEU:HG	1.90	0.53
39:2i:128:ARG:NH1	54:2x:33:U:O4	2.40	0.53
49:2s:38:SER:HB2	49:2s:71:LEU:HD22	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:2v:20:HIS:HA	52:2v:117:GLN:HB2	1.90	0.53
52:2v:115:GLU:C	52:2v:156:ARG:HH22	2.17	0.53
53:2w:151:GLU:O	53:2w:154:THR:HG23	2.09	0.53
54:2x:40:C:H5'	54:2y:36:A:H5"	1.91	0.53
1:1A:530:G:N1	1:1A:2023:G:OP1	2.30	0.52
1:1A:1609:A:O2'	1:1A:1610:A:O5'	2.26	0.52
1:1A:1912:A:H61	31:1a:1408:A:H4'	1.74	0.52
3:1D:254:THR:O	3:1D:254:THR:OG1	2.27	0.52
6:1G:64:THR:HB	6:1G:94:LEU:HD11	1.91	0.52
11:1Q:41:TRP:HB3	11:1Q:94:VAL:HB	1.90	0.52
21:10:56:ASP:OD2	21:10:58:THR:OG1	2.25	0.52
31:1a:413:G:O6	34:1d:35:ARG:HD3	2.07	0.52
31:1a:1051:C:N3	31:1a:1207:2MG:N2	2.54	0.52
31:1a:1144:G:H21	31:1a:1146:A:H62	1.56	0.52
40:1j:8:LEU:HB2	40:1j:16:LEU:HD11	1.91	0.52
1:2A:30:G:H2'	1:2A:31:C:C6	2.43	0.52
1:2A:2523:G:N2	1:2A:2764:A:N3	2.57	0.52
11:2Q:63:LYS:HA	20:2Z:178:GLU:HG2	1.90	0.52
31:2a:15:G:H1	31:2a:920:U:H3	1.57	0.52
31:2a:29:G:N1	31:2a:555:C:N4	2.57	0.52
31:2a:64:G:H4'	31:2a:65:U:H3'	1.89	0.52
31:2a:110:C:H2'	31:2a:111:G:O4'	2.09	0.52
31:2a:790:A:O5'	54:2x:38:A:O2'	2.27	0.52
35:2e:8:GLU:HG2	35:2e:34:VAL:HG23	1.91	0.52
35:2e:122:GLU:HB2	35:2e:126:ARG:NH1	2.24	0.52
45:2o:83:GLU:HG2	45:2o:84:LYS:N	2.24	0.52
52:2v:114:VAL:HG12	52:2v:152:THR:HB	1.92	0.52
53:2w:43:VAL:HG21	53:2w:79:ILE:HG12	1.91	0.52
1:1A:858:U:O2	1:1A:2268:A:H2'	2.09	0.52
1:1A:994:C:H3'	15:1U:54:LYS:HE3	1.90	0.52
1:1A:1342:A:C6	1:1A:1397:U:C6	2.98	0.52
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.44	0.52
1:1A:2870:C:OP1	12:1R:57:ARG:NH1	2.42	0.52
8:1N:96:GLU:H	8:1N:96:GLU:CD	2.17	0.52
12:1R:32:GLY:HA2	12:1R:116:LEU:HD12	1.91	0.52
31:1a:1077:G:O6	31:1a:1081:G:O6	2.27	0.52
54:1x:75:C:H5"	54:1x:76:A:O5'	2.09	0.52
1:2A:568:U:C5'	1:2A:568:U:C6	2.89	0.52
1:2A:605:C:O2	1:2A:657:U:O2'	2.25	0.52
1:2A:621:A:H3'	1:2A:622:G:H8	1.74	0.52
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:21:18:ILE:HG12	22:21:37:ILE:HG12	1.89	0.52
31:2a:671:G:H2'	31:2a:672:U:H6	1.74	0.52
31:2a:971:G:H4'	31:2a:972:C:H5"	1.90	0.52
34:2d:15:GLU:HB3	34:2d:63:LYS:HE2	1.90	0.52
37:2g:143:ARG:HA	37:2g:146:GLU:HB3	1.90	0.52
41:2k:54:ARG:NH2	54:2y:40:C:OP1	2.42	0.52
47:2q:8:GLY:O	47:2q:57:VAL:N	2.41	0.52
52:2v:94:VAL:O	52:2v:98:MET:N	2.41	0.52
52:2v:199:ILE:CG2	52:2v:200:PRO:HD2	2.39	0.52
1:1A:259:G:O2'	1:1A:621:A:O2'	2.27	0.52
1:1A:1248:G:C5	15:1U:3:ARG:HB2	2.45	0.52
1:1A:1256:G:O2'	5:1F:82:ILE:HD11	2.10	0.52
1:1A:2313:C:H2'	1:1A:2314:C:C6	2.45	0.52
3:1D:85:ASP:HB2	3:1D:92:ILE:HD13	1.91	0.52
11:1Q:62:GLY:HA2	20:1Z:116:VAL:HG21	1.91	0.52
18:1X:9:LEU:HA	23:12:36:ARG:NH2	2.24	0.52
18:1X:61:GLY:N	18:1X:75:ASP:OD1	2.28	0.52
31:1a:303:A:HO2'	31:1a:555:C:HO2'	1.53	0.52
31:1a:648:A:H2'	31:1a:649:G:C8	2.44	0.52
31:1a:881:G:H2'	31:1a:882:C:O4'	2.09	0.52
32:1b:24:TRP:HZ3	32:1b:29:ALA:HB2	1.75	0.52
44:1n:6:LEU:HB3	44:1n:23:ARG:NH2	2.24	0.52
47:1q:67:LYS:O	47:1q:69:LYS:N	2.38	0.52
53:1w:34:ASN:HB3	53:1w:37:LEU:HD23	1.92	0.52
1:2A:72:U:OP2	18:2X:1:MET:N	2.38	0.52
1:2A:195:A:O2'	1:2A:250:G:N2	2.35	0.52
1:2A:271(R):G:H2'	1:2A:271(S):G:H8	1.75	0.52
1:2A:652(B):A:H61	1:2A:655:A:C1'	2.20	0.52
1:2A:1751:C:H2'	1:2A:1752:C:C6	2.44	0.52
1:2A:1780:A:HO2'	1:2A:1781:C:H6	1.55	0.52
31:2a:947:G:H1	31:2a:1234:C:H42	1.57	0.52
31:2a:1356:G:H2'	31:2a:1357:A:C8	2.44	0.52
34:2d:191:ARG:NH1	34:2d:191:ARG:O	2.42	0.52
52:2v:438:PHE:HB3	52:2v:458:HIS:HE1	1.73	0.52
1:1A:2420:C:H5'	27:16:54:ILE:HD11	1.91	0.52
23:12:32:LEU:O	23:12:35:LEU:N	2.40	0.52
31:1a:539:A:H2'	31:1a:540:G:H8	1.75	0.52
31:1a:679:C:H42	31:1a:711:G:H1	1.57	0.52
31:1a:757:U:H2'	31:1a:758:G:O4'	2.10	0.52
31:1a:1226:C:C4'	49:1s:80:TYR:CZ	2.92	0.52
47:1q:92:ARG:HH11	47:1q:92:ARG:CG	2.14	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:1s:3:ARG:HH21	49:1s:7:LYS:HB2	1.75	0.52
51:1u:6:ARG:HH21	51:1u:15:ARG:NH2	2.07	0.52
1:2A:1361:G:H2'	1:2A:1362:C:H6	1.73	0.52
1:2A:2437:U:H2'	1:2A:2438:U:C6	2.45	0.52
1:2A:2712:U:OP1	1:2A:2714:G:H4'	2.10	0.52
24:23:16:PRO:CG	24:23:19:GLN:NE2	2.73	0.52
31:2a:148:G:H1	31:2a:174:C:N4	2.03	0.52
31:2a:663:A:H61	31:2a:742:G:H1	1.58	0.52
32:2b:74:LYS:HB2	32:2b:77:ALA:HB3	1.92	0.52
32:2b:77:ALA:HA	32:2b:80:ILE:HG22	1.91	0.52
54:2x:53:G:H1	54:2x:61:C:H42	1.57	0.52
1:1A:2012:G:OP2	17:1W:16:LYS:NZ	2.36	0.52
1:1A:2197:U:H1'	1:1A:2198:A:C8	2.44	0.52
1:1A:2319:G:C2	13:1S:3:ARG:HA	2.45	0.52
10:1P:98:GLU:O	10:1P:102:ARG:HG3	2.09	0.52
14:1T:9:LEU:O	14:1T:12:SER:OG	2.26	0.52
31:1a:9:G:OP2	35:1e:121:LYS:NZ	2.41	0.52
31:1a:407:G:H5"	34:1d:115:ARG:HG2	1.92	0.52
31:1a:1030:C:C4	31:1a:1030(A):G:H1'	2.44	0.52
31:1a:1424:C:H2'	31:1a:1425:U:O4'	2.10	0.52
33:1c:37:GLN:NE2	44:1n:52:GLN:OE1	2.42	0.52
42:1l:60:LEU:HD21	42:1l:85:ILE:HD13	1.91	0.52
1:2A:1385:G:O2'	1:2A:1396:U:O2	2.24	0.52
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.45	0.52
11:2Q:21:THR:HG21	11:2Q:101:ARG:HB2	1.92	0.52
12:2R:88:ARG:NH1	12:2R:89:ASP:OD2	2.43	0.52
31:2a:79:G:H1	31:2a:90:U:H3	1.56	0.52
31:2a:1329:A:N7	51:2u:7:ARG:NH2	2.57	0.52
35:2e:78:HIS:CE1	35:2e:142:LEU:HA	2.45	0.52
52:2v:276:VAL:HG22	52:2v:280:LEU:HD12	1.92	0.52
52:2v:549:ALA:HB1	52:2v:591:LYS:HG2	1.91	0.52
1:1A:256:A:H2'	1:1A:257:A:C8	2.44	0.52
1:1A:322:A:OP2	5:1F:169:ASN:HB2	2.10	0.52
1:1A:1614:A:C6	17:1W:87:PRO:HB3	2.45	0.52
1:1A:2884:U:O4	26:15:40:LYS:NZ	2.25	0.52
6:1G:11:TYR:HD2	6:1G:12:TYR:CD2	2.28	0.52
20:1Z:182:LYS:O	20:1Z:184:ALA:N	2.43	0.52
36:1f:22:GLU:OE2	36:1f:84:ASN:ND2	2.42	0.52
39:1i:28:VAL:HG21	39:1i:37:PHE:HE2	1.72	0.52
1:2A:1328:G:H2'	1:2A:1330:C:C4	2.44	0.52
1:2A:2529:G:OP2	1:2A:2530:A:H5"	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2Q:38:GLU:HG3	11:2Q:127:ILE:HG22	1.92	0.52
12:2R:33:ARG:HD3	12:2R:115:GLU:HB3	1.91	0.52
31:2a:1290:G:O2'	37:2g:37:ASN:ND2	2.42	0.52
52:2v:72:CYS:SG	52:2v:79:ILE:HB	2.49	0.52
52:2v:293:THR:O	52:2v:295:GLU:N	2.43	0.52
1:1A:1050:A:H2'	1:1A:1051:G:C8	2.45	0.52
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.44	0.52
1:1A:1799:G:H4'	1:1A:1800:C:H5"	1.91	0.52
1:1A:2444:G:OP2	5:1F:68:LYS:HD2	2.10	0.52
23:12:53:LEU:O	23:12:57:ILE:HG13	2.10	0.52
31:1a:877:C:H2'	31:1a:878:G:C8	2.43	0.52
35:1e:103:GLY:O	35:1e:107:ARG:HB2	2.10	0.52
15:2U:66:ASN:HD21	15:2U:70:ARG:HH21	1.58	0.52
20:2Z:53:ILE:HG22	20:2Z:71:VAL:HB	1.91	0.52
31:2a:359:U:H2'	31:2a:360:A:C8	2.44	0.52
31:2a:1128:C:O2'	31:2a:1129:C:OP1	2.24	0.52
31:2a:1431:C:H2'	31:2a:1432:G:O4'	2.10	0.52
43:2m:97:PRO:HB3	43:2m:101:GLN:HB2	1.90	0.52
47:2q:81:ARG:NE	47:2q:83:ASP:OD2	2.43	0.52
54:2x:30:G:H1	54:2x:40:C:H42	1.58	0.52
54:2y:33:U:H2'	54:2y:35:A:OP2	2.10	0.52
1:1A:322:A:O4'	1:1A:340:A:H1'	2.10	0.52
1:1A:1421:G:H2'	1:1A:1422:G:H8	1.74	0.52
7:1H:105:LEU:HB3	7:1H:107:VAL:HG13	1.91	0.52
9:1O:64:ARG:HG2	9:1O:83:ALA:HB3	1.91	0.52
9:1O:90:GLN:OE1	9:1O:90:GLN:N	2.38	0.52
31:1a:110:C:O2'	46:1p:25:ARG:O	2.27	0.52
31:1a:115:G:H4'	31:1a:116:A:O5'	2.10	0.52
31:1a:656:C:O2	45:1o:28:GLN:NE2	2.34	0.52
31:1a:972:C:OP2	40:1j:57:LYS:NZ	2.25	0.52
31:1a:1036:G:H3'	31:1a:1037:C:O4'	2.09	0.52
31:1a:1201:A:H4'	31:1a:1202:G:O5'	2.09	0.52
34:1d:109:GLY:HA3	34:1d:165:MET:HG3	1.90	0.52
52:1v:274:ASP:O	52:1v:278:ASP:N	2.43	0.52
6:2G:49:ASP:N	6:2G:49:ASP:OD1	2.43	0.52
9:2O:48:PRO:HB3	31:2a:1422:G:H5"	1.92	0.52
11:2Q:52:VAL:HA	11:2Q:55:VAL:HG22	1.91	0.52
31:2a:1187:G:H2'	31:2a:1188:A:C8	2.44	0.52
31:2a:1354:C:N3	31:2a:1368:G:O6	2.43	0.52
1:1A:1364:G:O5'	22:11:3:LYS:HG3	2.09	0.52
3:1D:53:PHE:HE2	3:1D:220:HIS:CD2	2.28	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:123:LEU:HD13	5:1F:192:LEU:HD13	1.92	0.52
10:1P:50:ARG:HH21	29:18:7:HIS:HD2	1.56	0.52
14:1T:29:ARG:NH2	14:1T:46:GLU:OE1	2.43	0.52
31:1a:403:C:H2'	31:1a:404:U:C6	2.45	0.52
31:1a:625:G:H2'	31:1a:626:U:C6	2.45	0.52
31:1a:707:C:OP1	41:1k:85:ARG:NH1	2.43	0.52
31:1a:1080:A:H5'	35:1e:14:ARG:NH2	2.24	0.52
31:1a:1530:G:H2'	31:1a:1531:A:C8	2.45	0.52
40:1j:5:ARG:HH11	40:1j:71:LEU:HD21	1.75	0.52
41:1k:32:ILE:HG13	41:1k:72:ALA:HB2	1.92	0.52
52:1v:132:ARG:CD	52:1v:132:ARG:N	2.73	0.52
1:2A:297:C:H5"	19:2Y:87:LYS:HG3	1.92	0.52
1:2A:1972:A:H2'	1:2A:1973:G:H8	1.74	0.52
1:2A:2343:C:HO2'	1:2A:2373:G:HO2'	1.55	0.52
3:2D:9:TYR:CD1	3:2D:10:THR:HG23	2.44	0.52
9:2O:34:THR:OG1	9:2O:35:VAL:N	2.39	0.52
40:2j:50:ILE:HA	40:2j:60:ARG:HD2	1.92	0.52
54:2y:25:C:HO2'	54:2y:26:A:H8	1.58	0.52
1:1A:668:G:C2	1:1A:670:A:C6	2.98	0.52
1:1A:1369:G:C2	1:1A:1370:C:C2	2.97	0.52
1:1A:2059:A:H2'	1:1A:2503:2MA:HN1	1.75	0.52
5:1F:114:VAL:HG21	5:1F:202:PHE:CE1	2.44	0.52
8:1N:121:LYS:HB3	8:1N:123:TYR:HE2	1.75	0.52
31:1a:524:G:H2'	31:1a:525:C:C6	2.44	0.52
31:1a:1095:U:P	31:1a:1108:G:H1	2.33	0.52
31:1a:1218:C:H2'	31:1a:1219:U:C6	2.45	0.52
32:1b:91:PRO:HG2	32:1b:155:LEU:HD13	1.91	0.52
33:1c:112:SER:HB3	33:1c:115:LEU:HB2	1.92	0.52
34:1d:57:ARG:NH2	35:1e:107:ARG:HD3	2.23	0.52
47:1q:24:GLU:HA	47:1q:39:SER:HA	1.91	0.52
1:2A:574:C:N3	4:2E:145:LYS:NZ	2.57	0.52
1:2A:822:U:H2'	1:2A:823:G:H8	1.75	0.52
1:2A:2336:A:H61	21:20:43:THR:HG22	1.75	0.52
1:2A:2601:C:HO2'	1:2A:2603:G:H8	1.57	0.52
3:2D:72:LYS:HE2	3:2D:97:TYR:CG	2.45	0.52
10:2P:44:GLY:HA3	10:2P:45:LEU:O	2.09	0.52
22:21:50:ARG:HG2	22:21:59:THR:HG22	1.91	0.52
31:2a:9:G:H2'	31:2a:10:A:H8	1.75	0.52
31:2a:20:U:H2'	31:2a:21:G:O4'	2.09	0.52
31:2a:1072:G:OP1	35:2e:57:LYS:NZ	2.43	0.52
31:2a:1144:G:H21	31:2a:1146:A:H62	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:1170:A:C5	31:2a:1171:G:H1'	2.45	0.52
49:2s:58:VAL:HG11	49:2s:76:PRO:HD2	1.93	0.52
52:2v:122:TRP:CE2	52:2v:157:LEU:HD13	2.44	0.52
53:2w:68:VAL:HG11	53:2w:79:ILE:HG21	1.91	0.52
1:1A:748:G:C8	17:1W:89:ALA:HB1	2.45	0.51
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.24	0.51
1:1A:1359:A:H61	1:1A:1372:U:H3	1.57	0.51
1:1A:1628:G:H2'	1:1A:1629:U:H6	1.75	0.51
1:1A:1972:A:H2'	1:1A:1973:G:H8	1.74	0.51
1:1A:2790:A:N3	1:1A:2790:A:C2'	2.73	0.51
21:10:54:GLY:O	21:10:57:PHE:N	2.42	0.51
31:1a:224:C:H2'	31:1a:225:C:C6	2.45	0.51
31:1a:413:G:H1'	31:1a:428:G:H21	1.74	0.51
35:1e:110:LEU:HD13	35:1e:118:ILE:HG21	1.91	0.51
38:1h:120:THR:H	38:1h:123:GLU:HB2	1.74	0.51
48:1r:48:GLY:O	48:1r:74:ARG:NH2	2.43	0.51
53:1w:28:LEU:O	53:1w:30:THR:HG23	2.10	0.51
1:2A:494:G:H4'	17:2W:6:ILE:HB	1.93	0.51
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.45	0.51
8:2N:123:TYR:OH	8:2N:130:HIS:NE2	2.37	0.51
9:2O:11:ALA:O	9:2O:99:PHE:N	2.34	0.51
9:2O:49:ARG:HH22	31:2a:1423:G:H5"	1.76	0.51
23:22:65:ASN:OD1	23:22:69:ARG:NH1	2.42	0.51
31:2a:501:C:H2'	31:2a:502:G:H8	1.75	0.51
31:2a:806:C:H2'	31:2a:807:A:H8	1.74	0.51
49:2s:66:MET:HB2	49:2s:74:PHE:CZ	2.45	0.51
52:2v:5:LEU:HD22	52:2v:305:PRO:HG3	1.92	0.51
1:1A:524:U:H2'	1:1A:525:U:C6	2.45	0.51
1:1A:2638:G:P	4:1E:82:ARG:HH22	2.32	0.51
1:1A:2695:C:H2'	1:1A:2696:U:H6	1.74	0.51
1:1A:2704:C:H2'	1:1A:2705:A:O4'	2.10	0.51
29:18:6:THR:HG22	29:18:63:PRO:HD2	1.92	0.51
31:1a:1316:G:N1	31:1a:1319:A:OP2	2.40	0.51
33:1c:21:ARG:HH12	33:1c:56:ASP:HB3	1.74	0.51
34:1d:61:LYS:HD3	34:1d:206:PHE:CE2	2.45	0.51
43:1m:24:GLY:O	43:1m:29:ARG:NH1	2.41	0.51
53:1w:82:ALA:O	53:1w:85:ASP:HB2	2.10	0.51
53:1w:160:GLU:OE1	53:1w:163:LYS:HD3	2.10	0.51
1:2A:482:A:H1'	1:2A:498:G:N2	2.25	0.51
1:2A:567:A:OP2	10:2P:29:LYS:NZ	2.36	0.51
1:2A:822:U:H2'	1:2A:823:G:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.43	0.51
4:2E:183:LEU:HD21	14:2T:10:VAL:HG11	1.92	0.51
32:2b:16:HIS:CG	32:2b:17:PHE:N	2.77	0.51
36:2f:30:LEU:HD23	36:2f:75:LEU:HD11	1.90	0.51
39:2i:110:GLU:OE2	39:2i:113:LYS:NZ	2.26	0.51
47:2q:65:ILE:HB	47:2q:69:LYS:HE2	1.92	0.51
1:1A:279:C:H42	1:1A:361:G:H1	1.58	0.51
1:1A:784:A:C6	3:1D:229:VAL:HG11	2.45	0.51
5:1F:130:ALA:H	5:1F:142:TRP:CD1	2.28	0.51
6:1G:20:ILE:HG23	6:1G:25:TYR:HB2	1.92	0.51
10:1P:52:GLU:HB3	10:1P:55:ARG:NE	2.26	0.51
31:1a:427:U:OP1	34:1d:13:ARG:NH1	2.41	0.51
31:1a:682:G:H1	31:1a:708:C:H42	1.56	0.51
31:1a:1033:G:H2'	31:1a:1034:G:C8	2.44	0.51
1:2A:1953:A:N1	1:2A:2549:G:O2'	2.35	0.51
1:2A:2103:C:H2'	1:2A:2104:G:C8	2.45	0.51
1:2A:2128:C:N3	1:2A:2160:G:O6	2.43	0.51
1:2A:2299:G:N1	1:2A:2318:G:N7	2.59	0.51
1:2A:2783:G:H2'	1:2A:2784:C:C6	2.46	0.51
2:2B:55:U:H4'	6:2G:28:VAL:HG22	1.92	0.51
7:2H:74:ASN:OD1	7:2H:83:TYR:OH	2.27	0.51
16:2V:4:ILE:HD12	16:2V:39:LEU:HB3	1.92	0.51
22:21:40:ARG:HH22	22:21:42:GLN:HG2	1.75	0.51
32:2b:187:LEU:HA	32:2b:201:ILE:HB	1.92	0.51
48:2r:33:ASP:OD2	48:2r:36:ASN:HB2	2.10	0.51
52:2v:546:ILE:HG23	52:2v:590:ILE:HG13	1.93	0.51
1:1A:1068:G:C2'	1:1A:1096:A:H1'	2.41	0.51
1:1A:1257:C:H4'	5:1F:83:PHE:CD1	2.44	0.51
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.74	0.51
25:14:28:LYS:HB3	25:14:31:ILE:HD11	1.92	0.51
31:1a:129(A):G:N3	31:1a:189(F):U:H5"	2.26	0.51
54:1y:19:G:H4'	54:1y:20:U:OP2	2.11	0.51
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.46	0.51
1:2A:1317:A:H2'	1:2A:1318:C:C6	2.42	0.51
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.10	0.51
31:2a:1060:C:H41	33:2c:2:GLY:HA3	1.76	0.51
33:2c:47:LEU:HD12	33:2c:68:VAL:HG11	1.92	0.51
33:2c:108:ASN:HD21	33:2c:144:SER:HB3	1.75	0.51
37:2g:138:LYS:NZ	37:2g:142:GLU:OE2	2.31	0.51
38:2h:44:PHE:HD1	38:2h:80:ILE:HG12	1.75	0.51
41:2k:19:ALA:HB2	41:2k:80:VAL:HB	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:247:G:H4'	1:1A:386:G:C5	2.45	0.51
1:1A:759:G:H2'	1:1A:760:G:H8	1.76	0.51
1:1A:1798:U:H5'	3:1D:259:THR:HG23	1.91	0.51
1:1A:2424:C:O2	1:1A:2429:G:O2'	2.26	0.51
1:1A:2753:A:N3	30:19:15:LYS:NZ	2.58	0.51
52:1v:-64:VAL:HG12	52:1v:-29:LEU:HA	1.91	0.51
52:1v:160:ARG:H	52:1v:160:ARG:HD2	1.75	0.51
52:1v:329:ARG:HA	52:1v:374:LEU:HB3	1.93	0.51
52:1v:411:VAL:O	52:1v:451:ILE:N	2.44	0.51
1:2A:259:G:H2'	1:2A:260:G:H8	1.75	0.51
1:2A:1378:A:OP1	28:27:10:ARG:NH2	2.44	0.51
1:2A:1798:U:H5'	3:2D:259:THR:HG23	1.92	0.51
1:2A:2335:A:O2'	1:2A:2336:A:OP2	2.22	0.51
1:2A:2500:U:O2'	1:2A:2504:U:OP1	2.29	0.51
2:2B:72:G:O2'	2:2B:105:A:N6	2.43	0.51
6:2G:27:ASN:HB3	6:2G:30:GLU:HB2	1.91	0.51
31:2a:1106:G:O2'	33:2c:171:GLY:O	2.27	0.51
31:2a:1248:A:N3	39:2i:70:LYS:HE2	2.25	0.51
31:2a:1518:MA6:N6	31:2a:1519:MA6:H103	2.24	0.51
32:2b:204:ASN:OD1	32:2b:205:ASP:N	2.44	0.51
41:2k:86:GLY:H	41:2k:112:THR:HG23	1.76	0.51
52:2v:227:ILE:HD13	52:2v:242:LEU:HD23	1.93	0.51
52:2v:483:TYR:CD2	52:2v:687:LEU:HD13	2.45	0.51
1:1A:918:A:C5	1:1A:919:G:H1'	2.45	0.51
1:1A:1152:C:H4'	15:1U:77:SER:HA	1.92	0.51
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.74	0.51
1:1A:2100:G:H1	1:1A:2189:U:H3	1.59	0.51
1:1A:2104:G:H1	1:1A:2185:C:H42	1.58	0.51
1:1A:2429:G:O6	10:1P:61:ARG:NH2	2.42	0.51
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	1.92	0.51
11:1Q:29:PHE:O	20:1Z:122:ARG:NH2	2.44	0.51
11:1Q:31:ASP:OD2	11:1Q:107:ALA:HA	2.10	0.51
19:1Y:92:ASN:HB3	19:1Y:94:LYS:N	2.22	0.51
23:12:38:GLN:HG2	23:12:44:LEU:HB2	1.93	0.51
29:18:32:LEU:O	29:18:36:LYS:HE3	2.10	0.51
34:1d:89:THR:C	34:1d:91:SER:H	2.18	0.51
37:1g:22:LEU:HD11	37:1g:101:LEU:HD21	1.93	0.51
43:1m:84:ILE:HG13	43:1m:86:CYS:H	1.75	0.51
52:1v:438:PHE:HB3	52:1v:458:HIS:HE1	1.76	0.51
1:2A:223:A:O2'	1:2A:420:C:O2	2.28	0.51
1:2A:619:G:O5'	1:2A:620:G:N2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1138:G:O2'	8:2N:102:ALA:O	2.29	0.51
1:2A:1187:G:C8	1:2A:1187:G:C5'	2.86	0.51
1:2A:2552:2MU:H6	1:2A:2552:2MU:O5'	2.10	0.51
3:2D:75:ILE:HG21	3:2D:99:ASP:HB2	1.92	0.51
4:2E:111:ARG:HD2	4:2E:160:TYR:CE2	2.46	0.51
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.92	0.51
31:2a:247:G:OP2	47:2q:100:LYS:N	2.36	0.51
31:2a:448:A:P	31:2a:485:G:H22	2.34	0.51
31:2a:1105:A:H2'	31:2a:1106:G:C8	2.45	0.51
52:2v:-53:ASP:OD1	52:2v:-52:VAL:N	2.43	0.51
52:2v:264:LEU:HB2	59:2v:704:GDP:C6	2.45	0.51
53:2w:55:ILE:HG23	53:2w:79:ILE:HD11	1.91	0.51
1:1A:82:G:N1	1:1A:103:A:OP2	2.40	0.51
1:1A:880:G:H2'	1:1A:881:G:C8	2.37	0.51
1:1A:1210:A:H5"	1:1A:1212:G:O4'	2.09	0.51
1:1A:2059:A:C2	1:1A:2503:2MA:C6	2.93	0.51
1:1A:2773:C:H2'	1:1A:2774:C:H6	1.75	0.51
4:1E:103:ASP:HB2	4:1E:168:MET:CB	2.38	0.51
16:1V:21:ARG:HG2	16:1V:91:TYR:CD1	2.45	0.51
26:15:11:THR:HG23	26:15:15:ARG:HD2	1.92	0.51
29:18:7:HIS:HB3	29:18:61:LEU:HB3	1.91	0.51
32:1b:166:ASP:HB3	32:1b:169:LYS:HB3	1.93	0.51
47:1q:61:GLU:HA	47:1q:71:PHE:CD1	2.45	0.51
1:2A:214:G:H1'	1:2A:216:A:O2'	2.10	0.51
1:2A:297:C:OP1	19:2Y:87:LYS:NZ	2.43	0.51
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.11	0.51
7:2H:137:ASP:HB3	7:2H:140:LYS:HB3	1.92	0.51
31:2a:584:G:H1	31:2a:757:U:H3	1.57	0.51
31:2a:738:C:OP1	36:2f:2:ARG:NH1	2.43	0.51
31:2a:885:G:H2'	31:2a:886:G:H8	1.76	0.51
31:2a:1062:U:H2'	31:2a:1063:C:C6	2.45	0.51
31:2a:1229:A:O2'	54:2x:30:G:OP1	2.28	0.51
31:2a:1321:C:H4'	43:2m:87:TYR:CD2	2.46	0.51
34:2d:8:VAL:HA	34:2d:11:LEU:HD13	1.92	0.51
34:2d:53:ASP:O	34:2d:57:ARG:NH1	2.43	0.51
54:2y:58:A:O2'	54:2y:59:U:OP1	2.29	0.51
1:1A:312:G:H5'	1:1A:331:A:O2'	2.10	0.51
1:1A:1365:A:O2'	22:11:11:ARG:NH1	2.43	0.51
1:1A:1450(A):C:H2'	1:1A:1451:C:C6	2.46	0.51
1:1A:2136:C:N3	1:1A:2155:G:N2	2.59	0.51
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2829:C:H2'	1:1A:2830:G:H8	1.75	0.51
1:1A:2853:C:H2'	1:1A:2854:G:H8	1.76	0.51
3:1D:79:VAL:HB	3:1D:114:GLY:H	1.75	0.51
13:1S:88:ASP:OD1	13:1S:90:GLY:N	2.38	0.51
20:1Z:23:LYS:HD3	20:1Z:40:ASP:HA	1.93	0.51
21:10:50:ASN:C	21:10:62:LEU:HD12	2.36	0.51
47:1q:88:TYR:CE1	47:1q:92:ARG:CZ	2.94	0.51
53:1w:1:MET:O	53:1w:5:GLU:HB2	2.10	0.51
1:2A:1441:G:H2'	1:2A:1442:G:C8	2.45	0.51
1:2A:2250:G:C8	1:2A:2496:C:H5"	2.45	0.51
12:2R:2:ARG:HG2	12:2R:5:LYS:HD2	1.92	0.51
22:21:12:PRO:HG3	22:21:44:PRO:HD3	1.92	0.51
31:2a:594:G:N2	31:2a:646:U:O2	2.43	0.51
31:2a:982:U:H5	44:2n:31:ARG:HH12	1.59	0.51
31:2a:1013:G:N2	31:2a:1016:A:OP2	2.44	0.51
33:2c:9:GLY:HA2	33:2c:12:LEU:HG	1.92	0.51
43:2m:45:VAL:HA	43:2m:48:LEU:HG	1.92	0.51
52:2v:227:ILE:HG23	52:2v:237:PRO:HG2	1.92	0.51
54:2y:50:U:O4	54:2y:64:A:N1	2.44	0.51
1:1A:571:A:H5'	1:1A:2030:A:N7	2.25	0.51
1:1A:779:U:OP1	3:1D:49:ILE:HG13	2.10	0.51
1:1A:819:A:OP2	1:1A:1187:G:N2	2.29	0.51
1:1A:1800:C:OP2	3:1D:183:ARG:NH2	2.42	0.51
1:1A:2596:U:H2'	1:1A:2597:G:O4'	2.10	0.51
1:1A:2876:G:H4'	14:1T:2:ASN:ND2	2.26	0.51
3:1D:53:PHE:CE2	3:1D:220:HIS:CD2	2.99	0.51
4:1E:78:LEU:O	4:1E:79:ARG:NH1	2.43	0.51
6:1G:161:THR:CG2	6:1G:163:ALA:N	2.58	0.51
31:1a:1187:G:H2'	31:1a:1188:A:C8	2.45	0.51
1:2A:92:A:H2'	1:2A:93:G:H8	1.76	0.51
1:2A:1213:A:H2'	1:2A:1214:A:C8	2.44	0.51
31:2a:502:G:H4'	31:2a:550:G:H4'	1.92	0.51
31:2a:1518:MA6:H93	31:2a:1519:MA6:H92	1.91	0.51
33:2c:187:ALA:HB3	33:2c:198:VAL:HB	1.92	0.51
37:2g:32:ARG:HH21	37:2g:109:ASN:ND2	2.09	0.51
43:2m:39:ILE:HD12	43:2m:56:LEU:HD13	1.93	0.51
54:2x:23:A:H2'	54:2x:24:G:H8	1.76	0.51
1:1A:245:G:H2'	1:1A:246:C:H6	1.74	0.51
1:1A:363(A):A:H2'	1:1A:363(B):G:H8	1.76	0.51
1:1A:380:U:H2'	1:1A:381:G:C8	2.45	0.51
1:1A:842:G:N2	1:1A:937:U:C2	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:902:C:H2'	1:1A:903:C:C6	2.46	0.51
1:1A:1024:G:C6	1:1A:1025:G:C6	2.99	0.51
1:1A:2271:G:H2'	1:1A:2272:U:C6	2.46	0.51
1:1A:2471:C:H2'	1:1A:2472:G:O4'	2.10	0.51
4:1E:2:LYS:HA	4:1E:84:PHE:CD1	2.46	0.51
6:1G:43:LEU:HD11	6:1G:153:ARG:HD2	1.93	0.51
27:16:26:ASN:HB3	27:16:29:ASN:HB2	1.93	0.51
36:1f:9:VAL:HB	36:1f:87:ARG:HB2	1.91	0.51
53:1w:32:ARG:HB2	53:1w:103:ILE:HG21	1.93	0.51
1:2A:573:G:O2'	1:2A:574:C:H3'	2.10	0.51
1:2A:2772:C:OP1	4:2E:202:LYS:NZ	2.44	0.51
1:2A:2870:C:H5"	12:2R:65:LEU:HD21	1.93	0.51
21:20:24:LYS:N	21:20:37:LEU:O	2.44	0.51
31:2a:294:U:OP1	31:2a:610:G:O2'	2.29	0.51
31:2a:936:C:N4	31:2a:1379:G:H1	2.05	0.51
44:2n:21:TYR:HE1	44:2n:23:ARG:HE	1.59	0.51
52:2v:114:VAL:HG13	52:2v:156:ARG:NH1	2.26	0.51
1:1A:18:C:H2'	1:1A:19:C:C6	2.46	0.50
1:1A:98:G:H5'	23:12:3:LEU:HD21	1.91	0.50
1:1A:337:C:H2'	1:1A:338:G:O4'	2.11	0.50
1:1A:1833:U:H2'	1:1A:1834:U:H6	1.75	0.50
1:1A:1941:C:O2	53:1w:133:ARG:NH2	2.44	0.50
1:1A:2070:G:H2'	1:1A:2071:A:H8	1.76	0.50
1:1A:2141:G:O6	1:1A:2150:U:O2	2.29	0.50
1:1A:2168:G:O6	1:1A:2171:A:H5"	2.11	0.50
1:1A:2392:A:OP2	29:18:31:HIS:NE2	2.39	0.50
1:1A:2408:U:H2'	1:1A:2409:G:C8	2.46	0.50
8:1N:129:PRO:HD2	8:1N:130:HIS:CD2	2.45	0.50
15:1U:88:ILE:HG22	15:1U:90:VAL:HG23	1.91	0.50
24:13:38:GLU:HB2	24:13:43:ILE:HD12	1.92	0.50
31:1a:1103:C:OP1	32:1b:96:ARG:NH1	2.44	0.50
46:1p:23:ASP:OD2	46:1p:25:ARG:NH2	2.44	0.50
1:2A:272(C):G:H2'	1:2A:272(D):G:H8	1.76	0.50
1:2A:702:G:H1	1:2A:730:C:H42	1.59	0.50
1:2A:991:C:H2'	1:2A:992:C:C6	2.45	0.50
1:2A:1224:C:HO2'	16:2V:86:GLY:H	1.56	0.50
1:2A:2844:G:H2'	1:2A:2845:G:O4'	2.12	0.50
3:2D:162:SER:H	3:2D:178:PRO:HG3	1.75	0.50
5:2F:40:GLN:OE1	5:2F:183:VAL:HG22	2.10	0.50
11:2Q:21:THR:HG21	11:2Q:101:ARG:HD2	1.93	0.50
11:2Q:35:VAL:HG13	11:2Q:130:LYS:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:24:55:ARG:C	25:24:57:GLU:H	2.18	0.50
31:2a:1270:C:H2'	31:2a:1271:G:C8	2.46	0.50
31:2a:1273:G:H3'	31:2a:1274:G:H8	1.76	0.50
34:2d:13:ARG:NH2	34:2d:40:PRO:HA	2.27	0.50
52:2v:-27:THR:O	52:2v:-23:LEU:HB2	2.11	0.50
52:2v:608:VAL:HG22	52:2v:671:MET:HG3	1.93	0.50
1:1A:1514:U:H2'	1:1A:1515:G:C8	2.46	0.50
6:1G:150:ASP:OD1	6:1G:150:ASP:N	2.44	0.50
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.92	0.50
16:1V:66:ARG:NH2	16:1V:88:ARG:HD3	2.26	0.50
31:1a:552:U:H4'	42:1l:86:ARG:HD2	1.92	0.50
40:1j:35:SER:HB2	40:1j:73:ASP:HB2	1.93	0.50
52:1v:199:ILE:C	52:1v:199:ILE:CD1	2.84	0.50
54:1x:23:A:H2'	54:1x:24:G:C8	2.46	0.50
54:1x:39:PSU:O2'	54:1y:35:A:O2'	2.22	0.50
1:2A:184:C:O2'	1:2A:217:G:N3	2.38	0.50
1:2A:942:G:OP1	10:2P:39:LYS:HE3	2.11	0.50
1:2A:1335:U:P	18:2X:65:ARG:HH11	2.34	0.50
2:2B:106:G:H4'	20:2Z:31:ARG:HB3	1.93	0.50
5:2F:155:LEU:HB2	5:2F:189:THR:HG21	1.92	0.50
31:2a:667:G:H4'	45:2o:51:HIS:ND1	2.26	0.50
50:2t:49:ALA:HB3	50:2t:99:LEU:HD13	1.92	0.50
52:2v:146:LEU:HD12	52:2v:167:PRO:HD3	1.94	0.50
1:1A:71:A:H4'	1:1A:72:U:H5"	1.92	0.50
1:1A:1051:G:H5"	1:1A:2752:C:O2'	2.12	0.50
1:1A:2185:C:H2'	1:1A:2186:G:H8	1.76	0.50
1:1A:2722:G:H2'	1:1A:2723:C:O4'	2.11	0.50
2:1B:85:G:C2	2:1B:86:G:C8	2.99	0.50
6:1G:5:VAL:HG12	25:14:25:TYR:CE2	2.46	0.50
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.94	0.50
20:1Z:47:VAL:O	20:1Z:51:ALA:N	2.43	0.50
31:1a:525:C:OP1	42:1l:89:ARG:NH1	2.45	0.50
31:1a:600:C:H5'	38:1h:129:VAL:HA	1.93	0.50
31:1a:763:G:H2'	31:1a:764:C:H6	1.76	0.50
31:1a:1239:A:H62	31:1a:1299:A:N6	2.09	0.50
38:1h:32:LYS:HA	38:1h:35:ILE:HD12	1.94	0.50
39:1i:31:GLN:HG3	39:1i:36:TYR:HB2	1.92	0.50
52:1v:350:GLU:CD	52:1v:382:GLU:H	2.19	0.50
53:1w:2:THR:N	53:1w:143:LEU:HD21	2.25	0.50
1:2A:582:G:H1	1:2A:1258:C:N4	2.10	0.50
1:2A:1011:G:OP2	15:2U:70:ARG:NH2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1027:A:N6	1:2A:1126:A:C4	2.79	0.50
1:2A:1815:A:P	3:2D:54:ARG:HH22	2.33	0.50
1:2A:2364:C:OP1	21:20:55:ARG:NH1	2.42	0.50
9:2O:98:VAL:HG11	9:2O:114:ILE:HG23	1.94	0.50
11:2Q:118:LEU:HD12	11:2Q:131:ILE:HG23	1.93	0.50
15:2U:98:LEU:HD21	16:2V:4:ILE:HD11	1.94	0.50
31:2a:54:C:O2	31:2a:358:U:N3	2.44	0.50
31:2a:634:C:H2'	31:2a:635:G:H8	1.77	0.50
38:2h:16:ALA:HA	38:2h:19:VAL:HG22	1.94	0.50
42:2l:27:LEU:HD22	42:2l:98:TYR:HE1	1.77	0.50
45:2o:55:GLY:HA2	45:2o:58:MET:HE2	1.93	0.50
47:2q:26:GLN:HG2	47:2q:37:LYS:HG2	1.93	0.50
52:2v:148:LEU:O	52:2v:152:THR:OG1	2.28	0.50
1:1A:271(F):C:H2'	1:1A:271(G):C:C6	2.46	0.50
1:1A:1358:G:O2'	1:1A:1373:A:N6	2.45	0.50
1:1A:1836:C:H2'	1:1A:1837:C:C6	2.47	0.50
1:1A:2390:U:P	29:18:35:GLN:HE22	2.34	0.50
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.26	0.50
31:1a:737:A:H5"	36:1f:92:LYS:HG3	1.94	0.50
31:1a:1485:U:H2'	31:1a:1486:G:C8	2.46	0.50
31:1a:1517:G:H2'	31:1a:1518:MA6:H8	1.92	0.50
33:1c:18:TRP:HZ2	44:1n:57:ARG:HB3	1.76	0.50
38:1h:81:HIS:ND1	38:1h:138:TRP:OXT	2.41	0.50
52:1v:607:ARG:HB2	52:1v:646:PHE:CE1	2.46	0.50
1:2A:29:U:H2'	1:2A:30:G:C8	2.46	0.50
1:2A:212:G:H2'	1:2A:213:A:O4'	2.11	0.50
1:2A:464:U:H2'	1:2A:465:G:O4'	2.10	0.50
1:2A:637:A:H4'	1:2A:638:G:O5'	2.12	0.50
1:2A:960:A:H8	1:2A:960:A:O5'	1.94	0.50
1:2A:1131:G:OP1	8:2N:80:GLY:N	2.35	0.50
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.45	0.50
1:2A:2854:G:C6	1:2A:2855:C:C4	2.99	0.50
3:2D:263:ARG:CZ	3:2D:263:ARG:HB2	2.42	0.50
4:2E:134:ILE:HA	4:2E:137:HIS:CD2	2.40	0.50
11:2Q:57:HIS:HD2	11:2Q:117:ALA:HB2	1.76	0.50
12:2R:59:ASP:OD2	12:2R:61:HIS:HB3	2.10	0.50
25:24:48:ARG:HG2	25:24:52:THR:HG23	1.93	0.50
31:2a:435:C:H2'	31:2a:436:C:C6	2.46	0.50
31:2a:715:A:H2'	31:2a:716:A:C8	2.45	0.50
31:2a:971:G:H1'	31:2a:1365:G:O2'	2.11	0.50
31:2a:1317:C:O2	49:2s:37:ARG:NH1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:1401:G:OP1	55:2z:18:C:O2'	2.29	0.50
34:2d:166:LYS:HA	34:2d:178:VAL:HG11	1.94	0.50
52:2v:109:ASP:OD1	52:2v:138:LYS:HD2	2.11	0.50
52:2v:132:ARG:HD2	52:2v:132:ARG:N	2.26	0.50
52:2v:428:LEU:HD22	52:2v:440:VAL:HG11	1.92	0.50
53:2w:53:ASN:OD1	53:2w:54:GLN:HG3	2.11	0.50
1:1A:774:A:N3	1:1A:774:A:H2'	2.27	0.50
1:1A:1142(A):A:O2'	1:1A:1143:A:H3'	2.11	0.50
1:1A:1607:C:N4	1:1A:1622:G:OP2	2.41	0.50
1:1A:2612:C:OP2	26:15:2:ALA:N	2.45	0.50
1:1A:2824:C:H2'	1:1A:2825:C:O4'	2.11	0.50
6:1G:111:LEU:HB3	6:1G:117:PHE:CZ	2.46	0.50
11:1Q:57:HIS:CD2	11:1Q:117:ALA:HB2	2.47	0.50
25:14:1:MET:HE2	25:14:6:HIS:CD2	2.46	0.50
31:1a:1260:C:O5'	31:1a:1284:C:H4'	2.11	0.50
32:1b:55:PHE:HA	32:1b:58:ILE:HB	1.94	0.50
39:1i:40:LEU:HB2	39:1i:43:ALA:HB2	1.93	0.50
1:2A:644:A:H2	1:2A:2369:A:H1'	1.76	0.50
1:2A:2219:G:H2'	1:2A:2220:G:H8	1.76	0.50
11:2Q:6:ARG:HE	20:2Z:195:GLU:HB3	1.77	0.50
31:2a:384:G:H2'	31:2a:385:C:C6	2.46	0.50
33:2c:177:THR:HB	33:2c:180:ALA:HB2	1.94	0.50
54:2x:23:A:H2'	54:2x:24:G:C8	2.46	0.50
1:1A:24:G:O2'	17:1W:78:GLU:O	2.26	0.50
1:1A:1291:C:H2'	1:1A:1292:U:H6	1.77	0.50
1:1A:2236:C:H2'	1:1A:2237:G:O4'	2.12	0.50
1:1A:2632:A:O2'	1:1A:2811:G:O2'	2.23	0.50
6:1G:44:GLY:O	6:1G:47:LYS:HE2	2.12	0.50
9:1O:10:VAL:HG11	9:1O:16:ALA:HB3	1.93	0.50
11:1Q:52:VAL:O	11:1Q:56:ARG:HG2	2.12	0.50
31:1a:1491:G:H3'	31:1a:1492:A:H8	1.77	0.50
33:1c:57:ILE:HG13	33:1c:66:VAL:HG22	1.93	0.50
52:1v:98:MET:HG2	52:1v:101:LEU:HD12	1.92	0.50
3:2D:20:ASP:OD2	3:2D:22:SER:OG	2.21	0.50
5:2F:64:ILE:HG23	5:2F:76:GLY:O	2.12	0.50
20:2Z:40:ASP:HB3	20:2Z:43:GLU:HB2	1.92	0.50
20:2Z:119:GLU:OE1	20:2Z:122:ARG:NH1	2.44	0.50
47:2q:9:VAL:HG13	47:2q:56:VAL:HG22	1.93	0.50
1:1A:484:C:H2'	1:1A:485:C:C6	2.46	0.50
1:1A:904:C:H2'	1:1A:905:U:C6	2.47	0.50
1:1A:997:G:OP2	15:1U:58:ARG:NH1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2393:A:H5"	10:1P:63:PRO:HB3	1.94	0.50
2:1B:74:U:H2'	2:1B:75:G:O4'	2.12	0.50
9:1O:104:ARG:HH22	14:1T:43:GLN:NE2	2.10	0.50
9:1O:120:GLU:OE1	14:1T:67:SER:OG	2.28	0.50
14:1T:117:ASP:O	14:1T:121:ILE:HG13	2.11	0.50
18:1X:31:HIS:CD2	18:1X:33:LYS:H	2.30	0.50
25:14:14:ILE:HB	25:14:22:ILE:HB	1.94	0.50
25:14:55:ARG:N	25:14:56:VAL:HA	2.27	0.50
27:16:18:ARG:HD2	27:16:42:TRP:CD1	2.46	0.50
31:1a:648:A:H2'	31:1a:649:G:H8	1.76	0.50
1:2A:11:G:C2'	1:2A:12:U:H5'	2.42	0.50
1:2A:26:G:H1'	1:2A:515:A:H61	1.77	0.50
1:2A:195:A:H62	1:2A:198:C:P	2.35	0.50
1:2A:2311:A:N3	6:2G:82:LEU:HD11	2.26	0.50
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.47	0.50
10:2P:98:GLU:O	10:2P:102:ARG:HG3	2.11	0.50
31:2a:448:A:OP2	31:2a:485:G:N2	2.38	0.50
31:2a:503:C:OP2	42:2l:116:SER:CB	2.60	0.50
31:2a:601:C:H2'	31:2a:602:A:C8	2.47	0.50
31:2a:1151:A:O2'	31:2a:1152:A:O5'	2.28	0.50
31:2a:1270:C:N4	31:2a:1271:G:O6	2.45	0.50
47:2q:6:LEU:HD23	47:2q:23:VAL:HG11	1.93	0.50
52:2v:105:ILE:HD13	52:2v:272:LEU:HD21	1.92	0.50
52:2v:487:ILE:HG12	52:2v:563:ILE:HG22	1.93	0.50
1:1A:11:G:H2'	1:1A:12:U:H5"	1.94	0.50
1:1A:630:G:N2	1:1A:633:A:OP2	2.37	0.50
1:1A:857:C:H42	1:1A:920:G:H1	1.60	0.50
1:1A:1068:G:O2'	1:1A:1096:A:H1'	2.12	0.50
1:1A:2856:C:C2	1:1A:2857:G:C8	3.00	0.50
12:1R:22:ARG:O	12:1R:24:GLN:N	2.44	0.50
14:1T:81:PRO:HG2	14:1T:82:LEU:HD12	1.93	0.50
16:1V:40:LEU:HB2	16:1V:46:VAL:HG13	1.93	0.50
20:1Z:13:GLU:HB2	20:1Z:18:LEU:HD21	1.94	0.50
24:13:18:ASP:OD1	24:13:18:ASP:N	2.44	0.50
25:14:57:GLU:HG2	25:14:58:ARG:HG3	1.94	0.50
26:15:52:TYR:HB3	26:15:57:VAL:HG21	1.94	0.50
28:17:24:THR:HG22	28:17:26:GLY:N	2.26	0.50
36:1f:97:PHE:N	48:1r:30:ASP:OD1	2.44	0.50
38:1h:44:PHE:HB3	38:1h:80:ILE:HD11	1.93	0.50
52:1v:123:ARG:NH1	52:1v:674:ASP:OD2	2.45	0.50
53:1w:90:LEU:O	53:1w:92:PRO:HD3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:322:A:H5'	1:2A:340:A:H1'	1.94	0.50
1:2A:1290:C:H2'	1:2A:1291:C:C6	2.47	0.50
1:2A:2647:U:H2'	1:2A:2648:C:H6	1.76	0.50
7:2H:26:VAL:HG21	7:2H:75:ALA:HB1	1.93	0.50
31:2a:352:C:O2'	31:2a:353:A:O5'	2.29	0.50
31:2a:699:C:H2'	31:2a:700:G:H8	1.77	0.50
31:2a:779:C:O2'	41:2k:120:ARG:NH1	2.44	0.50
32:2b:118:LEU:HD11	32:2b:141:GLU:CD	2.36	0.50
52:2v:488:THR:HB	52:2v:600:VAL:HG22	1.93	0.50
1:1A:189:G:O6	1:1A:205:G:O2'	2.23	0.50
1:1A:1007:C:H5"	8:1N:35:ARG:NH1	2.24	0.50
1:1A:1782:C:O4'	1:1A:2609:U:C2	2.65	0.50
1:1A:1996:C:H4'	1:1A:1997:G:H5'	1.93	0.50
11:1Q:26:TYR:CG	11:1Q:141:GLN:HG3	2.47	0.50
12:1R:52:ILE:O	12:1R:54:LEU:N	2.45	0.50
16:1V:37:VAL:HG22	16:1V:57:VAL:HG23	1.94	0.50
31:1a:1073:U:H2'	31:1a:1074:G:H8	1.77	0.50
52:1v:444:PRO:HG3	52:1v:551:GLN:HB2	1.94	0.50
1:2A:362:U:O2'	1:2A:363:G:H5"	2.11	0.50
1:2A:947:G:H2'	1:2A:948:G:C8	2.46	0.50
1:2A:974:G:O2'	1:2A:975:C:OP1	2.28	0.50
1:2A:1906:G:C8	1:2A:1929:G:H2'	2.47	0.50
6:2G:138:GLN:HE22	6:2G:149:VAL:HG23	1.77	0.50
14:2T:22:PHE:O	14:2T:23:ARG:HG3	2.12	0.50
18:2X:29:TRP:CZ3	18:2X:59:VAL:HG21	2.47	0.50
20:2Z:5:LEU:HD21	20:2Z:43:GLU:HB3	1.94	0.50
23:22:2:LYS:NZ	23:22:5:GLU:OE2	2.44	0.50
31:2a:555:C:H6	31:2a:555:C:O5'	1.94	0.50
31:2a:959:A:O2'	31:2a:984:C:O2'	2.25	0.50
1:1A:265:A:N1	1:1A:427:U:O2'	2.37	0.49
1:1A:431:U:H2'	1:1A:432:A:H8	1.77	0.49
1:1A:455:C:N3	1:1A:472:A:H2'	2.27	0.49
1:1A:903:C:H2'	1:1A:904:C:C6	2.47	0.49
1:1A:1353:A:C8	1:1A:1377:G:N2	2.80	0.49
1:1A:2406:U:C2	10:1P:72:PRO:HG2	2.46	0.49
1:1A:2685:G:H5'	9:1O:68:GLU:OE2	2.12	0.49
1:1A:2801(A):A:H1'	1:1A:2895:U:H1'	1.93	0.49
8:1N:27:ALA:HA	8:1N:30:ILE:HD12	1.93	0.49
14:1T:33:LYS:HA	14:1T:42:ILE:HD13	1.94	0.49
18:1X:53:LYS:HB3	18:1X:82:GLN:HB3	1.94	0.49
21:10:40:GLN:HE21	21:10:57:PHE:HB3	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:315:A:O2'	31:1a:330:C:O2'	2.24	0.49
31:1a:669:U:H2'	31:1a:670:G:C8	2.46	0.49
31:1a:1438:G:H2'	31:1a:1439:C:H6	1.76	0.49
49:1s:23:ASN:HD21	49:1s:43:GLU:HB3	1.77	0.49
52:1v:466:LEU:HB3	52:1v:472:VAL:HG21	1.94	0.49
1:2A:192:C:O2	1:2A:802:A:O2'	2.20	0.49
1:2A:484:C:H2'	1:2A:485:C:C6	2.47	0.49
1:2A:1028:A:N3	1:2A:2486:G:O2'	2.36	0.49
1:2A:1114:G:H2'	1:2A:1115:G:H8	1.76	0.49
1:2A:1140:C:OP2	8:2N:66:LYS:NZ	2.41	0.49
1:2A:1696:G:H3'	1:2A:1697:G:C8	2.47	0.49
1:2A:1853:A:H2'	1:2A:1854:A:C8	2.47	0.49
1:2A:2078:C:H2'	1:2A:2079:U:C6	2.46	0.49
1:2A:2203:U:O2'	3:2D:150:LYS:O	2.30	0.49
1:2A:2319:G:N2	13:2S:3:ARG:HD2	2.27	0.49
1:2A:2540:C:H2'	1:2A:2541:A:O4'	2.12	0.49
2:2B:18:G:H2'	2:2B:19:G:C8	2.47	0.49
15:2U:49:HIS:HA	15:2U:52:ARG:HB3	1.93	0.49
31:2a:298:A:H8	31:2a:298:A:OP1	1.95	0.49
31:2a:765:G:N1	31:2a:812:C:O2'	2.41	0.49
32:2b:30:ARG:NH2	32:2b:195:ASP:OD1	2.44	0.49
51:2u:6:ARG:HE	51:2u:15:ARG:CZ	2.25	0.49
53:2w:157:ALA:O	53:2w:161:ILE:HG12	2.12	0.49
1:1A:1154:G:H8	1:1A:1154:G:O5'	1.96	0.49
1:1A:2324:C:H5"	1:1A:2325:G:H5"	1.93	0.49
1:1A:2532:G:N2	1:1A:2662:A:N1	2.59	0.49
5:1F:24:LEU:HD21	5:1F:114:VAL:HG12	1.94	0.49
15:1U:85:LYS:HD3	15:1U:116:ALA:O	2.12	0.49
19:1Y:92:ASN:N	19:1Y:93:GLY:HA2	2.27	0.49
31:1a:10:A:H2'	31:1a:11:G:C8	2.47	0.49
31:1a:986:A:O2'	49:1s:55:LYS:O	2.30	0.49
31:1a:1220:G:H1'	49:1s:52:TYR:CD2	2.46	0.49
32:1b:97:TRP:CZ2	32:1b:102:LEU:HD13	2.47	0.49
39:1i:105:ASP:OD1	39:1i:105:ASP:N	2.44	0.49
53:1w:147:LEU:HD12	53:1w:149:LEU:HD11	1.94	0.49
1:2A:416:C:H2'	1:2A:417:C:C6	2.47	0.49
1:2A:854:G:H2'	1:2A:855:G:H8	1.75	0.49
1:2A:858:U:O2	1:2A:2268:A:H2'	2.11	0.49
1:2A:1263:U:C4	1:2A:1264:G:C6	2.99	0.49
1:2A:1360:A:C6	1:2A:1372:U:C4	3.00	0.49
1:2A:1839:G:C4	1:2A:1927:A:C8	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2121:G:H1	1:2A:2177:C:N4	2.10	0.49
1:2A:2262:U:H2'	1:2A:2263:C:C6	2.47	0.49
1:2A:2785:C:O2'	4:2E:66:HIS:ND1	2.41	0.49
11:2Q:24:GLY:HA2	11:2Q:67:ARG:NH2	2.27	0.49
22:21:12:PRO:HA	22:21:42:GLN:O	2.12	0.49
32:2b:174:VAL:HG11	32:2b:196:LEU:HG	1.94	0.49
40:2j:40:LEU:HB2	40:2j:69:ASN:HB3	1.94	0.49
52:2v:191:ASP:CG	52:2v:265:LYS:HD2	2.37	0.49
52:2v:329:ARG:HD2	52:2v:331:TYR:CE1	2.46	0.49
1:1A:183:C:H1'	1:1A:433:C:H1'	1.94	0.49
1:1A:462:C:N4	1:1A:467:G:H1	2.08	0.49
1:1A:833:U:H4'	29:18:57:ARG:NH2	2.27	0.49
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.11	0.49
9:1O:98:VAL:HG11	9:1O:114:ILE:HG23	1.94	0.49
15:1U:17:ILE:HG13	15:1U:32:PHE:CE1	2.43	0.49
25:14:54:GLY:N	25:14:55:ARG:HA	2.26	0.49
31:1a:600:C:OP1	38:1h:97:VAL:N	2.30	0.49
31:1a:639:G:H2'	31:1a:640:A:C8	2.47	0.49
31:1a:1472:U:C2	31:1a:1473:A:C8	3.00	0.49
31:1a:1482:G:H8	31:1a:1482:G:O5'	1.96	0.49
32:1b:51:LEU:HD22	32:1b:55:PHE:HE2	1.77	0.49
52:1v:182:ARG:O	52:1v:184:LYS:N	2.45	0.49
1:2A:738:G:C6	1:2A:739:G:C2	3.01	0.49
1:2A:1648:C:H42	1:2A:2009:G:H1	1.60	0.49
1:2A:1797:C:OP1	3:2D:273:ARG:NH2	2.45	0.49
1:2A:2735:G:H2'	1:2A:2736:G:H8	1.76	0.49
3:2D:65:ILE:HB	3:2D:67:PHE:CE2	2.47	0.49
22:21:23:LYS:HB3	22:21:29:GLY:HA3	1.93	0.49
40:2j:30:SER:OG	40:2j:84:GLN:OE1	2.23	0.49
1:1A:433:C:H2'	1:1A:434:U:C6	2.48	0.49
1:1A:1188:U:H4'	16:1V:79:VAL:HG22	1.92	0.49
2:1B:1:U:H3'	2:1B:2:C:C6	2.47	0.49
5:1F:32:LEU:HD13	5:1F:112:MET:HE1	1.93	0.49
19:1Y:76:CYS:N	19:1Y:81:LYS:O	2.44	0.49
22:11:73:LEU:HD11	22:11:98:LEU:HD21	1.94	0.49
31:1a:980:C:H1'	44:1n:19:ARG:HA	1.94	0.49
40:1j:11:PHE:HB3	44:1n:55:GLY:HA3	1.94	0.49
50:1t:47:GLY:N	50:1t:48:LYS:HB2	2.26	0.49
53:1w:80:GLU:O	53:1w:84:ARG:HD2	2.11	0.49
54:1x:6:G:N2	54:1x:67:C:N3	2.46	0.49
54:1x:53:G:H1	54:1x:61:C:H42	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.47	0.49
4:2E:15:PHE:CG	14:2T:81:PRO:HD3	2.48	0.49
12:2R:64:ARG:HA	12:2R:67:LEU:HB3	1.94	0.49
18:2X:31:HIS:HB3	18:2X:34:ALA:HB2	1.95	0.49
31:2a:514:C:H2'	31:2a:515:G:C8	2.47	0.49
32:2b:149:LEU:HA	32:2b:152:PHE:HB3	1.94	0.49
43:2m:97:PRO:CB	43:2m:101:GLN:HB2	2.42	0.49
1:1A:27:G:N2	1:1A:512:G:H1'	2.27	0.49
1:1A:195:A:H62	1:1A:198:C:P	2.34	0.49
1:1A:211:A:H2'	1:1A:212:G:C8	2.48	0.49
1:1A:411:G:C5	10:1P:72:PRO:HB3	2.48	0.49
1:1A:548:A:H61	16:1V:19:LYS:H	1.61	0.49
1:1A:648:G:H2'	1:1A:649:G:C8	2.47	0.49
1:1A:813:U:H2'	1:1A:814:C:C6	2.48	0.49
1:1A:1060:U:H3	1:1A:1088:A:H8	1.57	0.49
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.47	0.49
1:1A:1648:C:N4	1:1A:2009:G:H1	2.11	0.49
1:1A:1866:C:H2'	1:1A:1876:A:O4'	2.13	0.49
1:1A:2059:A:C8	1:1A:2503:2MA:CM2	2.95	0.49
1:1A:2848:G:H3'	14:1T:95:ARG:O	2.12	0.49
6:1G:161:THR:CG2	6:1G:163:ALA:CB	2.90	0.49
26:15:16:ARG:HG3	26:15:17:ASP:H	1.77	0.49
31:1a:8:A:N6	34:1d:209:ARG:HB2	2.27	0.49
31:1a:101:A:H2'	31:1a:102:G:H8	1.77	0.49
31:1a:674:G:H2'	31:1a:675:A:C8	2.48	0.49
32:1b:24:TRP:CD1	32:1b:24:TRP:H	2.30	0.49
32:1b:92:TYR:CE2	32:1b:151:GLY:HA3	2.47	0.49
34:1d:67:ILE:O	34:1d:114:ARG:NH1	2.46	0.49
36:1f:50:TYR:OH	48:1r:74:ARG:O	2.30	0.49
37:1g:138:LYS:NZ	37:1g:142:GLU:OE2	2.45	0.49
53:1w:147:LEU:HB2	53:1w:149:LEU:HD11	1.94	0.49
1:2A:597:U:H2'	1:2A:598:G:C8	2.47	0.49
1:2A:644:A:C2	1:2A:2369:A:H1'	2.48	0.49
1:2A:1291:C:H2'	1:2A:1292:U:H6	1.78	0.49
1:2A:2103:C:H2'	1:2A:2104:G:H8	1.77	0.49
1:2A:2419:U:H2'	1:2A:2420:C:C6	2.47	0.49
4:2E:15:PHE:HB3	14:2T:81:PRO:HG3	1.94	0.49
8:2N:40:PRO:HA	15:2U:67:ALA:HB3	1.93	0.49
31:2a:737:A:H2'	31:2a:738:C:H6	1.77	0.49
31:2a:1201:A:H4'	31:2a:1202:G:O5'	2.12	0.49
39:2i:42:ARG:NH1	39:2i:75:ASP:OD1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:2s:17:GLU:O	49:2s:21:GLU:HB2	2.12	0.49
53:2w:84:ARG:C	53:2w:86:SER:N	2.69	0.49
1:1A:58:G:O2'	1:1A:73:A:N1	2.33	0.49
1:1A:196:A:H2'	1:1A:196:A:N3	2.27	0.49
1:1A:252:G:P	10:1P:50:ARG:HH12	2.36	0.49
1:1A:375:C:N4	1:1A:399:G:H1	2.11	0.49
1:1A:1267:U:H2'	1:1A:1268:A:C8	2.44	0.49
13:1S:14:VAL:O	13:1S:18:ILE:HG12	2.13	0.49
31:1a:367:U:OP1	52:1v:340:TYR:OH	2.22	0.49
31:1a:491:G:H2'	31:1a:492:G:C8	2.48	0.49
31:1a:1073:U:H3	31:1a:1102:A:H61	1.60	0.49
32:1b:97:TRP:CZ2	32:1b:173:ALA:HA	2.47	0.49
52:1v:87:HIS:CB	52:1v:90:PHE:HB3	2.42	0.49
52:1v:123:ARG:HD2	52:1v:675:HIS:CB	2.42	0.49
1:2A:68:G:H2'	1:2A:69:C:O4'	2.12	0.49
1:2A:301:G:H1	1:2A:316:C:H42	1.59	0.49
1:2A:940:G:H2'	1:2A:941:A:O4'	2.11	0.49
1:2A:1266:G:O5'	17:2W:15:ARG:NH2	2.45	0.49
1:2A:1773:A:H2'	1:2A:1774:C:O4'	2.12	0.49
1:2A:2263:C:O2	1:2A:2277:G:N2	2.45	0.49
6:2G:150:ASP:OD1	6:2G:150:ASP:N	2.45	0.49
7:2H:152:ARG:HG3	7:2H:161:GLY:HA2	1.94	0.49
8:2N:67:LEU:HA	8:2N:87:LEU:HD13	1.95	0.49
31:2a:885:G:H2'	31:2a:886:G:C8	2.46	0.49
31:2a:902:G:H2'	31:2a:903:G:C8	2.46	0.49
37:2g:47:CYS:HA	37:2g:50:ILE:HG12	1.95	0.49
38:2h:95:VAL:HB	38:2h:99:GLU:HB2	1.94	0.49
53:2w:84:ARG:C	53:2w:86:SER:H	2.21	0.49
53:2w:107:THR:HG22	53:2w:109:GLU:H	1.76	0.49
1:1A:25:U:C4	1:1A:26:G:C6	3.01	0.49
1:1A:828:U:H4'	1:1A:831:G:C2	2.47	0.49
1:1A:969:U:O3'	24:13:14:GLY:HA2	2.13	0.49
1:1A:971:C:H2'	1:1A:972:G:O4'	2.12	0.49
1:1A:1025:G:O2'	1:1A:1026:U:OP1	2.30	0.49
1:1A:1184:G:C5	1:1A:1185:C:C5	3.01	0.49
3:1D:69:ARG:NH1	3:1D:128:GLY:O	2.45	0.49
6:1G:165:THR:OG1	6:1G:168:GLU:HG3	2.12	0.49
18:1X:5:TYR:CE2	23:12:30:ARG:HB2	2.47	0.49
27:16:47:THR:HG22	27:16:48:VAL:H	1.77	0.49
31:1a:997:U:H2'	31:1a:998:G:C8	2.48	0.49
36:1f:15:ASP:OD1	36:1f:18:GLN:N	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1h:23:SER:HA	38:1h:63:LEU:HD13	1.94	0.49
43:1m:10:PRO:HG2	43:1m:13:LYS:HD2	1.95	0.49
52:1v:-15:ARG:HA	52:1v:-12:ALA:HB3	1.94	0.49
1:2A:238:C:O2'	1:2A:608:A:N3	2.41	0.49
1:2A:272:G:H4'	1:2A:272(A):U:H5"	1.95	0.49
3:2D:233:HIS:N	3:2D:233:HIS:CD2	2.80	0.49
4:2E:170:LEU:HD21	4:2E:187:ALA:O	2.12	0.49
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.94	0.49
10:2P:95:VAL:HA	10:2P:99:LEU:HD11	1.95	0.49
11:2Q:19:GLY:O	11:2Q:99:PRO:HD2	2.12	0.49
11:2Q:60:ARG:HH12	20:2Z:181:GLU:HG2	1.77	0.49
13:2S:11:LYS:HG3	13:2S:91:PRO:HD3	1.93	0.49
19:2Y:75:ILE:HD13	19:2Y:82:PRO:HB3	1.94	0.49
23:22:1:MET:HB3	23:22:5:GLU:HB2	1.95	0.49
31:2a:417:C:H2'	31:2a:418:C:C6	2.47	0.49
31:2a:1232:U:H5"	39:2i:124:GLN:HB3	1.95	0.49
32:2b:15:VAL:HG23	32:2b:16:HIS:HD2	1.77	0.49
52:2v:182:ARG:NH2	52:2v:279:TYR:OH	2.46	0.49
1:1A:218:A:H2'	1:1A:219:G:O4'	2.12	0.49
1:1A:468:G:N7	28:17:39:ARG:NH2	2.57	0.49
1:1A:581:C:H2'	1:1A:582:G:C8	2.47	0.49
1:1A:864:G:H1'	1:1A:914:C:N4	2.27	0.49
1:1A:1130:U:C2	1:1A:2025:C:H5"	2.47	0.49
2:1B:119:G:H2'	2:1B:120:A:O4'	2.12	0.49
3:1D:37:LEU:HD13	3:1D:62:TYR:HB2	1.95	0.49
5:1F:155:LEU:HD11	5:1F:176:LEU:HD12	1.94	0.49
12:1R:100:LEU:HD21	12:1R:113:LEU:HD23	1.94	0.49
20:1Z:70:LEU:HG	20:1Z:91:LEU:HD21	1.95	0.49
31:1a:114:U:H1'	31:1a:353:A:H1'	1.95	0.49
31:1a:153:C:H2'	31:1a:154:C:C6	2.48	0.49
31:1a:599:C:O2'	38:1h:130:GLY:N	2.45	0.49
50:1t:13:LEU:HD12	50:1t:14:LYS:N	2.28	0.49
52:1v:122:TRP:NE1	52:1v:132:ARG:HH21	2.10	0.49
52:1v:344:THR:HG21	52:1v:397:VAL:C	2.38	0.49
52:1v:438:PHE:HB3	52:1v:458:HIS:CE1	2.47	0.49
52:1v:485:GLU:OE1	52:1v:555:LEU:HB2	2.12	0.49
1:2A:1164:G:H2'	1:2A:1165:U:O4'	2.12	0.49
1:2A:1482:G:H2'	1:2A:1484:G:H8	1.77	0.49
1:2A:2221:G:H2'	1:2A:2222:G:H8	1.78	0.49
3:2D:97:TYR:HE2	3:2D:103:ARG:HB2	1.77	0.49
5:2F:126:VAL:HG11	5:2F:142:TRP:CH2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2Y:30:VAL:HG22	19:2Y:37:VAL:HG12	1.95	0.49
31:2a:1224:G:H1	31:2a:1363:C:N4	2.02	0.49
32:2b:24:TRP:CD1	32:2b:24:TRP:H	2.31	0.49
32:2b:84:GLU:HB3	32:2b:219:VAL:HG21	1.95	0.49
1:1A:534:U:H2'	1:1A:535:C:C6	2.48	0.49
1:1A:1851:U:H2'	1:1A:1852:C:O4'	2.13	0.49
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.48	0.49
6:1G:166:ASP:HA	6:1G:169:ALA:HB3	1.95	0.49
31:1a:164:U:H2'	31:1a:165:C:C6	2.48	0.49
31:1a:592:G:H1	31:1a:647:C:H42	1.60	0.49
31:1a:883:C:N4	31:1a:884:U:O4	2.46	0.49
32:1b:21:ARG:O	32:1b:23:ARG:N	2.46	0.49
36:1f:96:PRO:HB3	48:1r:30:ASP:CG	2.38	0.49
38:1h:23:SER:OG	38:1h:24:THR:N	2.43	0.49
52:1v:-29:LEU:HG	52:1v:-27:THR:HG23	1.95	0.49
52:1v:86:GLY:HA2	52:1v:91:THR:HG23	1.95	0.49
52:1v:319:ASP:OD2	52:1v:322:VAL:N	2.45	0.49
1:2A:143(A):C:H2'	1:2A:144:C:C6	2.48	0.49
1:2A:296:C:H2'	1:2A:297:C:C6	2.48	0.49
1:2A:565:C:H4'	1:2A:1253:A:N6	2.27	0.49
1:2A:1224:C:H4'	16:2V:86:GLY:O	2.12	0.49
10:2P:88:LEU:HA	10:2P:91:PHE:HD2	1.78	0.49
11:2Q:108:GLY:HA3	20:2Z:116:VAL:HG11	1.95	0.49
25:24:53:GLU:HG2	25:24:54:GLY:N	2.28	0.49
31:2a:272:C:H2'	31:2a:273:A:H8	1.78	0.49
48:2r:44:LEU:HD11	48:2r:79:LEU:HD13	1.95	0.49
52:2v:-7:GLU:HA	52:2v:-4:ALA:HB3	1.94	0.49
1:1A:8:A:H2'	1:1A:9:U:C6	2.48	0.49
1:1A:271(T):C:H2'	1:1A:271(U):G:H8	1.77	0.49
1:1A:749:C:H4'	1:1A:1271:G:N3	2.28	0.49
1:1A:1342:A:C5	1:1A:1397:U:C6	3.00	0.49
1:1A:1395:A:N6	1:1A:1398:C:O2	2.46	0.49
1:1A:1972:A:H2'	1:1A:1973:G:C8	2.47	0.49
1:1A:2057:A:H2'	1:1A:2058:A:C8	2.48	0.49
6:1G:119:GLY:HA3	6:1G:181:ARG:HB2	1.95	0.49
31:1a:159:G:O2'	31:1a:161:A:N7	2.45	0.49
31:1a:1084:G:C5	31:1a:1085:U:C4	3.00	0.49
32:1b:17:PHE:HB3	32:1b:44:LEU:HD11	1.94	0.49
32:1b:112:VAL:HG12	32:1b:149:LEU:HD13	1.94	0.49
42:1l:79:GLU:HG2	42:1l:80:HIS:ND1	2.28	0.49
48:1r:26:LEU:HD11	48:1r:42:ARG:HG3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1w:30:THR:O	53:1w:32:ARG:HG3	2.13	0.49
53:1w:156:ARG:HE	53:1w:160:GLU:HB2	1.77	0.49
1:2A:81:G:H2'	1:2A:82:G:O4'	2.12	0.49
1:2A:1829:A:H2'	1:2A:1830:C:O4'	2.13	0.49
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.26	0.49
7:2H:125:VAL:HG12	7:2H:131:VAL:HG22	1.94	0.49
15:2U:65:ILE:HG13	15:2U:96:ALA:HB2	1.95	0.49
25:24:47:GLN:C	25:24:49:PHE:H	2.21	0.49
31:2a:688:G:H5'	41:2k:46:GLY:C	2.37	0.49
31:2a:1271:G:N1	31:2a:1272:G:O6	2.45	0.49
36:2f:46:ARG:HB3	36:2f:46:ARG:HH21	1.78	0.49
42:2l:59:ARG:HA	42:2l:65:GLU:HA	1.95	0.49
44:2n:37:PHE:HB3	44:2n:39:LEU:HD12	1.94	0.49
52:2v:544:LYS:HD3	52:2v:583:LYS:HE2	1.95	0.49
54:2x:30:G:H1	54:2x:40:C:N4	2.11	0.49
1:1A:831:G:N2	10:1P:53:GLY:O	2.46	0.48
1:1A:2252:G:H2'	1:1A:2253:G:O4'	2.12	0.48
1:1A:2376:A:H8	1:1A:2376:A:OP1	1.95	0.48
3:1D:53:PHE:HA	3:1D:218:ARG:HB2	1.93	0.48
11:1Q:17:LEU:HD21	11:1Q:41:TRP:HE1	1.78	0.48
28:17:30:VAL:HG22	28:17:33:ARG:NH2	2.27	0.48
31:1a:19:C:H2'	31:1a:20:U:C6	2.47	0.48
31:1a:1183:A:O2'	31:1a:1184:G:OP1	2.29	0.48
31:1a:1377:A:N3	37:1g:2:ALA:HB2	2.28	0.48
31:1a:1480:G:H2'	31:1a:1481:U:O4'	2.13	0.48
37:1g:20:ASP:OD1	37:1g:21:VAL:N	2.45	0.48
37:1g:29:LYS:NZ	37:1g:102:ARG:HH21	2.11	0.48
42:1l:28:LYS:O	42:1l:33:ARG:NH2	2.46	0.48
43:1m:89:GLY:O	43:1m:93:ARG:HG3	2.13	0.48
52:1v:-41:ALA:HB1	52:1v:-36:LEU:HD13	1.95	0.48
52:1v:74:TRP:CD1	52:1v:273:LEU:HB3	2.47	0.48
1:2A:1825:A:H2'	1:2A:1826:G:C8	2.48	0.48
1:2A:2049:G:N2	1:2A:2620:C:C2	2.80	0.48
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.48	0.48
1:2A:2512:C:H4'	4:2E:122:PHE:CE2	2.47	0.48
1:2A:2542:A:H4'	1:2A:2543:G:H8	1.77	0.48
1:2A:2881:C:H5"	12:2R:96:ARG:HH21	1.78	0.48
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.94	0.48
19:2Y:13:VAL:HG12	19:2Y:74:PRO:HA	1.95	0.48
22:21:56:GLN:HE21	22:21:87:PRO:HG3	1.77	0.48
23:22:21:LEU:HB2	23:22:64:LEU:HD13	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:25:20:ARG:HA	26:25:23:HIS:CD2	2.48	0.48
31:2a:601:C:H2'	31:2a:602:A:H8	1.77	0.48
31:2a:1030:C:N3	31:2a:1031:G:N2	2.60	0.48
38:2h:10:LEU:HD22	38:2h:83:ILE:HD11	1.95	0.48
38:2h:81:HIS:N	38:2h:138:TRP:O	2.43	0.48
47:2q:74:LEU:HD23	47:2q:75:ARG:HG2	1.95	0.48
1:1A:436:C:H2'	1:1A:437:G:H8	1.77	0.48
1:1A:869:G:C4	1:1A:870:A:C8	3.01	0.48
1:1A:1770:G:H2'	1:1A:1771:C:H6	1.78	0.48
1:1A:1908:C:H2'	1:1A:1909:C:C6	2.48	0.48
1:1A:2692:C:H2'	1:1A:2693:A:H8	1.78	0.48
5:1F:46:ARG:HB3	5:1F:48:THR:HG23	1.95	0.48
6:1G:46:ALA:HB1	6:1G:50:ALA:O	2.13	0.48
7:1H:116:GLU:OE2	7:1H:117:PRO:HD2	2.14	0.48
20:1Z:111:VAL:O	20:1Z:112:ARG:HB3	2.13	0.48
31:1a:143:A:H2	31:1a:220:G:H1	1.61	0.48
31:1a:300:A:O2'	31:1a:564:C:N3	2.46	0.48
31:1a:501:C:H2'	31:1a:502:G:H8	1.78	0.48
31:1a:1442:G:H2'	31:1a:1442:G:N3	2.28	0.48
52:1v:99:ARG:NE	52:1v:402:ILE:HG12	2.22	0.48
54:1y:6:G:O6	54:1y:7:A:N6	2.46	0.48
1:2A:127:A:H5"	1:2A:128:C:C6	2.48	0.48
1:2A:194:G:N2	1:2A:202:U:H1'	2.28	0.48
1:2A:336:C:HO2'	19:2Y:35:TYR:HH	1.55	0.48
1:2A:339:U:O5'	1:2A:339:U:H6	1.96	0.48
1:2A:442:G:H4'	5:2F:46:ARG:HG3	1.94	0.48
1:2A:1388:G:H4'	1:2A:1525:G:O2'	2.13	0.48
1:2A:2835:A:H1'	1:2A:2836:U:H5	1.77	0.48
8:2N:85:ILE:HG23	8:2N:89:LYS:HD2	1.93	0.48
14:2T:28:VAL:O	14:2T:46:GLU:HA	2.12	0.48
27:26:13:CYS:HB2	27:26:49:HIS:NE2	2.27	0.48
31:2a:245:C:O5'	31:2a:245:C:H6	1.97	0.48
31:2a:1104:G:H4'	32:2b:111:ARG:HE	1.77	0.48
31:2a:1347:G:O2'	31:2a:1373:G:N1	2.39	0.48
35:2e:43:LEU:HB2	35:2e:136:MET:SD	2.53	0.48
37:2g:111:ARG:HB3	37:2g:119:ARG:HD2	1.94	0.48
38:2h:111:ILE:HD12	38:2h:135:CYS:SG	2.53	0.48
50:2t:9:ASN:OD1	50:2t:9:ASN:N	2.46	0.48
52:2v:135:PHE:CD1	52:2v:272:LEU:HD22	2.48	0.48
54:2y:67:C:H2'	54:2y:68:C:C6	2.49	0.48
1:1A:580:C:H2'	1:1A:581:C:C6	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1050:A:C2	1:1A:2751:G:C6	3.01	0.48
1:1A:1270:C:O2'	1:1A:1648:C:OP2	2.26	0.48
1:1A:1341:U:C5'	18:1X:57:LEU:HD23	2.43	0.48
1:1A:1392:A:N6	1:1A:1393:A:N1	2.62	0.48
1:1A:2079:U:O3'	22:11:35:THR:OG1	2.30	0.48
11:1Q:75:THR:HG21	11:1Q:87:LYS:HZ2	1.78	0.48
15:1U:102:GLU:HB3	15:1U:104:GLN:NE2	2.29	0.48
16:1V:14:VAL:HB	16:1V:96:ILE:HG13	1.95	0.48
31:1a:1070:U:H2'	31:1a:1071:C:H6	1.78	0.48
41:1k:59:TYR:CZ	41:1k:63:LEU:HD11	2.48	0.48
52:1v:253:LEU:HD23	52:1v:518:PRO:HG2	1.96	0.48
53:1w:114:LEU:HB3	53:1w:183:ILE:HG21	1.95	0.48
1:2A:300:A:OP2	19:2Y:86:ARG:NH2	2.46	0.48
1:2A:552:G:H2'	1:2A:553:G:H8	1.78	0.48
1:2A:639:U:H2'	1:2A:640:C:C6	2.48	0.48
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.13	0.48
1:2A:2261:C:C6	21:20:16:SER:HB3	2.48	0.48
2:2B:80:U:H2'	2:2B:81:G:C8	2.48	0.48
2:2B:87:G:H2'	2:2B:88:C:H5"	1.95	0.48
4:2E:3:GLY:HA2	4:2E:198:VAL:O	2.14	0.48
18:2X:64:LYS:HG3	18:2X:73:ARG:CZ	2.43	0.48
20:2Z:102:LEU:HD11	20:2Z:124:ILE:HG22	1.95	0.48
25:24:53:GLU:HG2	25:24:54:GLY:H	1.78	0.48
31:2a:419:C:OP1	31:2a:513:C:O2'	2.26	0.48
31:2a:1481:U:H2'	31:2a:1482:G:C8	2.48	0.48
37:2g:64:GLN:HE21	37:2g:68:ASN:HD21	1.62	0.48
42:2l:47:LYS:HG2	42:2l:48:PRO:HA	1.95	0.48
54:2y:44:G:HO2'	54:2y:45:U:P	2.36	0.48
1:1A:242:G:C8	29:18:3:LYS:HG3	2.49	0.48
1:1A:355:G:H2'	1:1A:356:G:H8	1.78	0.48
1:1A:1054:A:N1	1:1A:1105:U:O2	2.47	0.48
1:1A:1252:G:C2	1:1A:1253:A:C2	3.02	0.48
1:1A:1416:G:O2'	1:1A:1417:C:OP2	2.28	0.48
1:1A:1692:U:O2'	1:1A:1693:U:H2'	2.13	0.48
1:1A:2185:C:H2'	1:1A:2186:G:C8	2.48	0.48
3:1D:206:LEU:HA	3:1D:211:ARG:HE	1.78	0.48
5:1F:135:LYS:HB2	5:1F:138:GLU:HG3	1.95	0.48
21:10:40:GLN:NE2	21:10:43:THR:HA	2.29	0.48
23:12:32:LEU:HD22	23:12:36:ARG:HH11	1.78	0.48
31:1a:763:G:H2'	31:1a:764:C:C6	2.48	0.48
31:1a:870:U:H4'	31:1a:871:U:H5"	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:1263:C:H2'	31:1a:1264:C:C6	2.48	0.48
1:2A:307:G:N2	1:2A:309:G:H3'	2.28	0.48
1:2A:528:A:OP2	8:2N:111:PRO:HB3	2.14	0.48
1:2A:781:A:H2	1:2A:1776:G:N3	2.11	0.48
1:2A:1268:A:C6	1:2A:2013:A:C8	3.02	0.48
1:2A:1653:G:C6	12:2R:9:LYS:HB2	2.48	0.48
1:2A:2104:G:H1	1:2A:2185:C:H42	1.61	0.48
1:2A:2577:A:H2'	1:2A:2614:A:N6	2.28	0.48
7:2H:7:LEU:HD12	7:2H:8:PRO:HD2	1.95	0.48
11:2Q:60:ARG:HG2	20:2Z:180:VAL:HB	1.96	0.48
20:2Z:156:LYS:HZ2	20:2Z:158:PRO:HD3	1.79	0.48
31:2a:532:A:H5'	31:2a:532:A:N3	2.28	0.48
31:2a:728:A:OP1	45:2o:54:ARG:NH1	2.46	0.48
31:2a:1104:G:O2'	32:2b:111:ARG:NH2	2.47	0.48
35:2e:31:LEU:HD21	35:2e:43:LEU:HD11	1.94	0.48
40:2j:38:ILE:HD11	40:2j:71:LEU:HB3	1.94	0.48
41:2k:60:ALA:O	41:2k:64:ALA:N	2.45	0.48
1:1A:144:C:H5'	18:1X:2:LYS:NZ	2.28	0.48
1:1A:207:A:H2'	1:1A:208:C:O4'	2.13	0.48
1:1A:681:G:N2	1:1A:797:C:C2	2.81	0.48
1:1A:1266:G:OP2	26:15:20:ARG:NE	2.38	0.48
1:1A:1291:C:H2'	1:1A:1292:U:C6	2.48	0.48
1:1A:1309:G:P	28:17:9:ARG:HD2	2.54	0.48
1:1A:1379:A:H8	1:1A:1379:A:OP1	1.97	0.48
1:1A:1380:G:N2	1:1A:1570:A:N1	2.58	0.48
1:1A:1921:G:H2'	1:1A:1922:G:H8	1.76	0.48
1:1A:2142:C:N3	1:1A:2149:G:O6	2.47	0.48
1:1A:2544:G:H1'	1:1A:2646:C:H4'	1.95	0.48
1:1A:2595:G:N2	1:1A:2598:A:OP2	2.44	0.48
10:1P:138:LEU:HD23	10:1P:145:PRO:HB3	1.95	0.48
32:1b:230:VAL:HG22	32:1b:231:GLU:H	1.77	0.48
37:1g:122:HIS:HA	37:1g:125:MET:HB2	1.95	0.48
1:2A:953:A:H61	1:2A:964:C:H42	1.60	0.48
1:2A:2773:C:H2'	1:2A:2774:C:H6	1.78	0.48
28:27:27:GLY:O	28:27:30:VAL:HB	2.14	0.48
31:2a:54:C:H41	31:2a:352:C:H2'	1.78	0.48
47:2q:5:VAL:HG22	47:2q:60:ILE:HG13	1.94	0.48
47:2q:84:LEU:HA	47:2q:87:LYS:NZ	2.29	0.48
52:2v:72:CYS:O	52:2v:79:ILE:N	2.46	0.48
52:2v:423:LYS:NZ	52:2v:470:PHE:O	2.45	0.48
52:2v:604:PRO:O	52:2v:648:PRO:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:143(A):C:H2'	1:1A:144:C:H6	1.79	0.48
1:1A:577:G:O2'	1:1A:1254:A:OP1	2.31	0.48
1:1A:942:G:OP1	10:1P:39:LYS:NZ	2.36	0.48
1:1A:1250:G:OP2	10:1P:21:ARG:NH1	2.46	0.48
1:1A:2674:G:C6	1:1A:2675:A:C6	3.02	0.48
1:1A:2677:G:H2'	1:1A:2678:C:H6	1.79	0.48
1:1A:2690:C:OP2	12:1R:14:SER:HB3	2.14	0.48
2:1B:68:C:H2'	2:1B:69:G:H8	1.78	0.48
8:1N:25:ARG:O	8:1N:29:LYS:NZ	2.40	0.48
25:14:69:LYS:HA	49:1s:20:LEU:HD13	1.94	0.48
31:1a:1089:G:H1	31:1a:1096:C:N4	2.10	0.48
32:1b:97:TRP:HZ2	32:1b:102:LEU:HD13	1.78	0.48
52:1v:140:ASP:HA	52:1v:172:ASP:H	1.79	0.48
52:1v:166:LEU:HD12	52:1v:166:LEU:HA	1.67	0.48
52:1v:188:TYR:CG	52:1v:267:LYS:HG2	2.49	0.48
53:1w:54:GLN:O	53:1w:55:ILE:HD12	2.14	0.48
1:2A:192:C:O2'	1:2A:802:A:N3	2.45	0.48
1:2A:1131:G:H8	1:2A:2025:C:H4'	1.78	0.48
1:2A:1963:U:H4'	1:2A:1964:G:OP1	2.12	0.48
1:2A:2735:G:H2'	1:2A:2736:G:C8	2.48	0.48
3:2D:26:LYS:HB3	3:2D:83:GLU:HG2	1.94	0.48
3:2D:186:HIS:CE1	3:2D:188:GLU:HG2	2.49	0.48
3:2D:246:PRO:C	3:2D:254:THR:HG22	2.38	0.48
5:2F:40:GLN:HE22	5:2F:184:TYR:H	1.62	0.48
5:2F:143:ALA:HA	5:2F:148:LEU:HD12	1.95	0.48
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.96	0.48
31:2a:279:A:OP2	47:2q:95:TYR:OH	2.26	0.48
31:2a:585:G:OP1	47:2q:37:LYS:HE2	2.14	0.48
31:2a:629:G:H2'	31:2a:630:G:O4'	2.13	0.48
31:2a:741:G:H5"	45:2o:59:MET:HE1	1.94	0.48
31:2a:1003:G:H1	31:2a:1027:C:N4	2.11	0.48
31:2a:1019:C:H2'	31:2a:1020:U:H4'	1.95	0.48
34:2d:172:PRO:O	34:2d:187:ARG:NH2	2.46	0.48
41:2k:109:VAL:HG23	48:2r:86:VAL:HG22	1.96	0.48
42:2l:84:LEU:HD22	42:2l:104:VAL:HG11	1.94	0.48
43:2m:22:ILE:HD12	43:2m:25:ILE:HD12	1.96	0.48
52:2v:550:MET:O	52:2v:560:VAL:N	2.46	0.48
1:1A:580:C:C2	1:1A:581:C:C5	3.01	0.48
1:1A:652(A):A:O2'	1:1A:652(C):G:OP2	2.27	0.48
1:1A:1040:C:H2'	1:1A:1041:C:O4'	2.14	0.48
1:1A:1290:C:H2'	1:1A:1291:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2121:G:OP2	1:1A:2121:G:H8	1.97	0.48
1:1A:2271:G:H2'	1:1A:2272:U:H6	1.78	0.48
3:1D:106:ILE:HD11	3:1D:143:HIS:CD2	2.48	0.48
11:1Q:104:PHE:HE2	11:1Q:125:LEU:HD11	1.78	0.48
31:1a:556:C:H2'	31:1a:557:G:C8	2.47	0.48
31:1a:587:G:C2	31:1a:755:G:C6	3.01	0.48
31:1a:636:U:H2'	31:1a:637:G:C8	2.47	0.48
31:1a:1452:C:H4'	31:1a:1457:G:C8	2.48	0.48
38:1h:34:GLU:O	38:1h:38:ILE:HG12	2.13	0.48
42:1l:97:ARG:HB2	42:1l:98:TYR:CE2	2.48	0.48
52:1v:164:MET:HG3	52:1v:257:PRO:HB3	1.96	0.48
1:2A:566:U:P	16:2V:80:GLN:HE21	2.36	0.48
1:2A:1297:C:H2'	1:2A:1298:C:C6	2.48	0.48
1:2A:2228:G:OP1	3:2D:261:LYS:NZ	2.33	0.48
1:2A:2547:U:H2'	1:2A:2548:G:C8	2.47	0.48
1:2A:2845:G:H2'	1:2A:2846:G:C8	2.49	0.48
3:2D:142:VAL:HG23	3:2D:193:VAL:HA	1.96	0.48
11:2Q:77:LYS:NZ	11:2Q:84:GLY:O	2.42	0.48
31:2a:655:A:H61	31:2a:751:U:H3	1.61	0.48
31:2a:814:A:N7	31:2a:816:A:C4	2.82	0.48
31:2a:1423:G:H2'	31:2a:1424:C:C6	2.48	0.48
1:1A:839:U:O2'	1:1A:1191:G:H1'	2.14	0.48
1:1A:857:C:N4	1:1A:858:U:O4	2.47	0.48
1:1A:1908:C:H2'	1:1A:1909:C:H6	1.79	0.48
1:1A:2335:A:C8	1:1A:2337:G:C5	3.01	0.48
12:1R:52:ILE:O	12:1R:55:ALA:N	2.46	0.48
13:1S:66:ALA:HA	13:1S:69:VAL:HG12	1.96	0.48
17:1W:89:ALA:O	17:1W:91:GLY:N	2.47	0.48
31:1a:5:U:H5'	31:1a:6:G:C5	2.49	0.48
31:1a:250:A:H4'	31:1a:251:G:O5'	2.14	0.48
31:1a:491:G:H2'	31:1a:492:G:H8	1.79	0.48
31:1a:1370:G:C2	31:1a:1371:G:C8	3.02	0.48
32:1b:118:LEU:HD12	32:1b:145:LEU:HD12	1.96	0.48
1:2A:566:U:H5"	10:2P:29:LYS:HE3	1.96	0.48
1:2A:687:C:H5"	28:27:2:LYS:HE2	1.96	0.48
1:2A:1355:G:O5'	1:2A:1355:G:H8	1.97	0.48
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.49	0.48
6:2G:41:GLN:HG2	6:2G:43:LEU:HD13	1.96	0.48
14:2T:18:ASP:OD1	14:2T:18:ASP:N	2.46	0.48
15:2U:106:PHE:O	15:2U:110:VAL:HG23	2.13	0.48
31:2a:188:C:O4'	50:2t:89:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:1187:G:H2'	31:2a:1188:A:H8	1.78	0.48
31:2a:1490:C:H2'	31:2a:1491:G:C8	2.47	0.48
46:2p:53:VAL:HG13	46:2p:79:VAL:HG22	1.96	0.48
52:2v:485:GLU:HG2	52:2v:555:LEU:HD12	1.96	0.48
52:2v:605:ILE:HG12	52:2v:675:HIS:NE2	2.28	0.48
53:2w:52:LEU:HA	53:2w:55:ILE:HG22	1.95	0.48
1:1A:27:G:O2'	1:1A:512:G:N2	2.46	0.48
1:1A:1648:C:H42	1:1A:2009:G:H1	1.61	0.48
1:1A:1842:G:H2'	1:1A:1843:C:C6	2.49	0.48
5:1F:34:TRP:CH2	10:1P:8:PRO:HB3	2.49	0.48
6:1G:33:ARG:O	6:1G:162:THR:HG23	2.13	0.48
31:1a:325:A:OP2	50:1t:70:SER:OG	2.22	0.48
31:1a:1293:G:H2'	31:1a:1294:G:C8	2.48	0.48
35:1e:6:PHE:HB3	35:1e:34:VAL:HG22	1.95	0.48
37:1g:68:ASN:ND2	37:1g:128:ALA:O	2.47	0.48
41:1k:54:ARG:HH12	54:1y:40:C:H5'	1.79	0.48
47:1q:66:SER:O	47:1q:70:ARG:NH1	2.47	0.48
52:1v:642:VAL:HG13	52:1v:644:ARG:HD2	1.96	0.48
1:2A:570:G:H2'	1:2A:2030:A:N6	2.29	0.48
1:2A:2731:G:OP1	4:2E:169:ASN:ND2	2.35	0.48
5:2F:126:VAL:HG11	5:2F:142:TRP:HH2	1.79	0.48
8:2N:96:GLU:CD	8:2N:96:GLU:H	2.21	0.48
17:2W:16:LYS:O	17:2W:19:LEU:HB2	2.13	0.48
28:27:30:VAL:O	28:27:34:ARG:HG2	2.14	0.48
31:2a:409:G:N2	31:2a:433:C:N3	2.59	0.48
31:2a:908:A:H2'	31:2a:909:A:C8	2.49	0.48
34:2d:159:ARG:O	34:2d:163:GLU:N	2.36	0.48
35:2e:71:LEU:HD23	35:2e:74:GLY:HA2	1.95	0.48
39:2i:26:VAL:HB	39:2i:33:PHE:HB2	1.96	0.48
50:2t:10:LEU:HG	50:2t:12:ALA:H	1.79	0.48
53:2w:29:ARG:HB2	53:2w:32:ARG:HG2	1.95	0.48
1:1A:143(A):C:H2'	1:1A:144:C:C6	2.48	0.48
1:1A:271(W):G:C6	1:1A:271(X):G:C2	3.01	0.48
1:1A:272(G):C:N3	1:1A:363(C):G:N2	2.40	0.48
1:1A:1051:G:H4'	1:1A:2752:C:H4'	1.96	0.48
1:1A:1986:A:H2'	1:1A:1987:G:H8	1.79	0.48
1:1A:2271:G:H5"	21:10:20:ARG:NH1	2.29	0.48
10:1P:59:LEU:HD12	29:18:58:ILE:HG12	1.96	0.48
32:1b:109:SER:O	32:1b:112:VAL:HG22	2.13	0.48
44:1n:24:CYS:HB3	44:1n:28:GLY:H	1.79	0.48
52:1v:133:ILE:HG22	52:1v:257:PRO:HD2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:1v:491:VAL:HG11	52:1v:593:ALA:O	2.13	0.48
1:2A:1007:C:OP1	8:2N:35:ARG:NH1	2.47	0.48
1:2A:1042:G:N7	1:2A:1043:C:N4	2.62	0.48
1:2A:1525:G:H2'	1:2A:1526:G:H8	1.79	0.48
1:2A:2340:G:H2'	1:2A:2341:G:C8	2.47	0.48
5:2F:155:LEU:HD12	5:2F:174:VAL:O	2.14	0.48
6:2G:39:ILE:HG12	6:2G:157:ILE:HG23	1.96	0.48
9:2O:68:GLU:OE1	9:2O:78:ARG:NH1	2.46	0.48
31:2a:147:G:H2'	31:2a:148:G:C8	2.49	0.48
31:2a:187:C:H5"	50:2t:86:ARG:HG3	1.96	0.48
31:2a:403:C:N4	31:2a:547:A:H5'	2.28	0.48
31:2a:1320:C:H2'	31:2a:1321:C:O4'	2.13	0.48
52:2v:20:HIS:HB3	52:2v:23:ALA:HB2	1.96	0.48
1:1A:107:C:H2'	1:1A:108:U:C6	2.49	0.47
1:1A:323:G:HO2'	1:1A:1205:U:H3	1.58	0.47
1:1A:842:G:N2	1:1A:937:U:O2	2.47	0.47
1:1A:967:C:H2'	1:1A:968:G:O4'	2.14	0.47
1:1A:993:G:OP1	15:1U:50:ARG:NH2	2.40	0.47
1:1A:1053:C:N3	1:1A:1106:G:N2	2.54	0.47
1:1A:1388:G:H2'	1:1A:1389:G:C8	2.49	0.47
1:1A:2319:G:N2	13:1S:3:ARG:HA	2.29	0.47
1:1A:2437:U:C2	1:1A:2438:U:C5	3.01	0.47
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.49	0.47
13:1S:71:ARG:HD3	13:1S:107:GLU:CD	2.38	0.47
20:1Z:198:LYS:CB	20:1Z:202:GLU:HB2	2.44	0.47
31:1a:129(A):G:C2	31:1a:189(H):G:C8	3.02	0.47
31:1a:1316:G:H22	31:1a:1319:A:P	2.37	0.47
31:1a:1516:G:N2	31:1a:1519:MA6:OP2	2.47	0.47
32:1b:20:GLU:OE2	32:1b:21:ARG:NH2	2.47	0.47
33:1c:52:LEU:HD11	33:1c:55:VAL:HG22	1.96	0.47
45:1o:55:GLY:HA2	45:1o:58:MET:HE3	1.96	0.47
52:1v:329:ARG:HD2	52:1v:331:TYR:CZ	2.49	0.47
52:1v:336:THR:O	52:1v:339:SER:OG	2.29	0.47
52:1v:342:TYR:HD1	52:1v:349:LYS:HG2	1.78	0.47
1:2A:997:G:OP2	15:2U:58:ARG:NH1	2.47	0.47
1:2A:1221(A):C:C2	1:2A:1229:G:C2	3.01	0.47
3:2D:266:SER:O	3:2D:270:ILE:HG13	2.14	0.47
8:2N:67:LEU:O	8:2N:88:GLU:HG3	2.13	0.47
31:2a:262:A:H2'	31:2a:263:A:C8	2.49	0.47
31:2a:1184:G:H2'	31:2a:1185:G:C8	2.49	0.47
31:2a:1238:A:N3	31:2a:1241:G:O2'	2.38	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2f:33:TYR:HB2	36:2f:75:LEU:HD12	1.95	0.47
36:2f:86:ARG:O	36:2f:87:ARG:NH1	2.47	0.47
40:2j:6:ILE:HB	40:2j:72:VAL:HG23	1.94	0.47
42:2l:90:VAL:HG22	42:2l:99:HIS:CE1	2.49	0.47
50:2t:56:MET:SD	50:2t:88:VAL:HG21	2.54	0.47
1:1A:1836:C:H2'	1:1A:1837:C:H6	1.80	0.47
1:1A:2262:U:H2'	1:1A:2263:C:C6	2.49	0.47
1:1A:2262:U:H2'	1:1A:2263:C:H6	1.79	0.47
1:1A:2677:G:H2'	1:1A:2678:C:C6	2.48	0.47
2:1B:39:A:H2'	2:1B:40:U:C6	2.49	0.47
4:1E:9:VAL:HG22	4:1E:25:VAL:O	2.14	0.47
4:1E:133:LYS:O	4:1E:134:ILE:HG23	2.14	0.47
5:1F:188:ARG:HA	10:1P:3:LEU:HD11	1.97	0.47
7:1H:68:THR:O	7:1H:72:ILE:HG13	2.14	0.47
9:1O:10:VAL:HG21	9:1O:16:ALA:O	2.14	0.47
15:1U:50:ARG:HB2	15:1U:53:ARG:NH2	2.29	0.47
18:1X:26:TYR:O	18:1X:81:VAL:HG22	2.14	0.47
20:1Z:125:LEU:HB3	20:1Z:165:VAL:CG1	2.44	0.47
22:11:23:LYS:HB3	22:11:29:GLY:HA3	1.96	0.47
27:16:38:LYS:HB2	27:16:49:HIS:CE1	2.48	0.47
29:18:39:LYS:HA	29:18:42:ARG:HH12	1.78	0.47
31:1a:869:G:O2'	31:1a:872:A:N7	2.45	0.47
31:1a:1038:C:H2'	31:1a:1039:C:H5'	1.95	0.47
31:1a:1359:C:OP2	44:1n:35:ARG:CZ	2.62	0.47
33:1c:131:ARG:NH1	33:1c:166:GLU:OE2	2.47	0.47
36:1f:33:TYR:HB2	36:1f:75:LEU:HD12	1.96	0.47
52:1v:123:ARG:HD2	52:1v:675:HIS:HB2	1.95	0.47
52:1v:487:ILE:HG23	52:1v:594:VAL:HG13	1.95	0.47
53:1w:32:ARG:HB3	53:1w:103:ILE:HG12	1.96	0.47
1:2A:807:U:H2'	1:2A:808:G:H8	1.79	0.47
1:2A:1426:G:N2	1:2A:1571:A:N7	2.62	0.47
1:2A:1790:C:H5"	1:2A:1791:A:OP1	2.14	0.47
1:2A:1905:C:H3'	1:2A:1930:G:C8	2.48	0.47
1:2A:2136:C:C4	1:2A:2155:G:N1	2.74	0.47
1:2A:2144:U:H1'	1:2A:2148:G:N2	2.29	0.47
1:2A:2256:G:C6	1:2A:2257:U:C4	3.03	0.47
6:2G:62:LEU:O	6:2G:143:GLU:HG2	2.14	0.47
9:2O:58:VAL:HG21	9:2O:86:ILE:HD13	1.96	0.47
17:2W:84:ARG:HG3	17:2W:98:LYS:HD2	1.94	0.47
22:21:83:GLU:HA	22:21:84:GLY:HA2	1.53	0.47
25:24:46:GLN:C	25:24:48:ARG:H	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:27:34:ARG:HA	28:27:34:ARG:HD2	1.66	0.47
31:2a:401:C:P	34:2d:73:ARG:HH21	2.37	0.47
31:2a:579:G:H1	31:2a:762:C:H42	1.60	0.47
31:2a:674:G:H2'	31:2a:675:A:C8	2.44	0.47
31:2a:1371:G:O3'	39:2i:69:GLY:HA3	2.14	0.47
51:2u:18:TYR:CZ	51:2u:24:ARG:HD3	2.49	0.47
52:2v:153:MET:HE1	52:2v:258:VAL:HG22	1.96	0.47
52:2v:484:ARG:O	52:2v:684:GLN:NE2	2.46	0.47
1:1A:70:G:H5"	1:1A:112:U:O2	2.14	0.47
1:1A:501:A:H2'	1:1A:502:A:C8	2.48	0.47
1:1A:861:A:N3	2:1B:79:C:O2'	2.47	0.47
1:1A:1062:G:N2	1:1A:1077:A:H61	2.12	0.47
1:1A:1153:C:OP1	15:1U:92:ARG:NH2	2.36	0.47
1:1A:1751:C:O2'	1:1A:2861:G:O2'	2.22	0.47
1:1A:2302:G:H2'	1:1A:2303:G:H8	1.79	0.47
1:1A:2611:U:H3'	1:1A:2611:U:OP2	2.14	0.47
1:1A:2788:C:O2'	1:1A:2809:A:N3	2.44	0.47
3:1D:206:LEU:O	3:1D:211:ARG:HD3	2.14	0.47
7:1H:33:LEU:HD11	7:1H:136:ILE:HG13	1.97	0.47
20:1Z:124:ILE:HD13	20:1Z:155:LEU:HD21	1.96	0.47
31:1a:936:C:H2'	31:1a:937:A:O4'	2.14	0.47
31:1a:1376:U:P	37:1g:94:ARG:HH22	2.37	0.47
35:1e:103:GLY:C	35:1e:106:PRO:HD2	2.39	0.47
39:1i:63:ILE:HG22	39:1i:65:VAL:HG22	1.96	0.47
51:1u:9:ARG:HH22	51:1u:10:ARG:HH21	1.60	0.47
52:1v:103:GLY:H	52:1v:130:VAL:HG12	1.80	0.47
52:1v:268:GLY:O	52:1v:272:LEU:N	2.42	0.47
53:1w:30:THR:C	53:1w:32:ARG:N	2.73	0.47
1:2A:578:A:O2'	1:2A:580:C:OP2	2.27	0.47
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.94	0.47
1:2A:2366:A:H2'	1:2A:2367:G:O4'	2.14	0.47
3:2D:70:TRP:CZ2	3:2D:150:LYS:HA	2.49	0.47
11:2Q:141:GLN:NE2	20:2Z:74:VAL:O	2.37	0.47
12:2R:100:LEU:HD11	12:2R:113:LEU:HD23	1.95	0.47
15:2U:74:LEU:HD13	15:2U:79:PHE:HB2	1.96	0.47
18:2X:29:TRP:HZ3	18:2X:59:VAL:HG21	1.80	0.47
23:22:10:LEU:HB3	23:22:14:ARG:NH1	2.21	0.47
31:2a:76:C:H42	31:2a:93:G:H1	1.59	0.47
31:2a:551:U:H2'	31:2a:552:U:C6	2.49	0.47
31:2a:998:G:H1	31:2a:1043:C:N4	2.09	0.47
33:2c:122:GLU:O	33:2c:125:GLU:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2c:124:ILE:HG12	33:2c:189:ALA:HB1	1.96	0.47
37:2g:59:LEU:O	37:2g:63:LYS:HG3	2.13	0.47
39:2i:40:LEU:HD11	39:2i:70:LYS:HB3	1.96	0.47
43:2m:122:LYS:HD2	43:2m:122:LYS:HA	1.68	0.47
1:1A:64:A:O3'	18:1X:71:GLY:HA3	2.14	0.47
1:1A:769:G:H2'	1:1A:770:G:H8	1.78	0.47
1:1A:958:U:H5'	11:1Q:14:ARG:HD3	1.96	0.47
1:1A:2261:C:H1'	1:1A:2388:A:N3	2.30	0.47
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.14	0.47
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.14	0.47
1:1A:2790:A:N3	1:1A:2790:A:H2'	2.29	0.47
6:1G:83:ARG:NH2	54:1x:58:A:OP1	2.36	0.47
8:1N:13:TRP:CE2	8:1N:133:GLN:HG2	2.49	0.47
15:1U:110:VAL:HG12	15:1U:114:LYS:HD2	1.95	0.47
31:1a:113:G:H2'	31:1a:114:U:C6	2.50	0.47
31:1a:323:U:H4'	50:1t:22:ARG:HB2	1.96	0.47
31:1a:625:G:H2'	31:1a:626:U:H6	1.78	0.47
32:1b:52:GLU:HG2	32:1b:56:ARG:HH12	1.79	0.47
34:1d:146:ILE:H	34:1d:146:ILE:HD12	1.78	0.47
35:1e:12:LEU:HB3	35:1e:31:LEU:HB2	1.96	0.47
1:2A:195:A:N6	1:2A:198:C:O5'	2.48	0.47
1:2A:702:G:H1	1:2A:730:C:N4	2.13	0.47
1:2A:813:U:H2'	1:2A:814:C:C6	2.50	0.47
1:2A:890:A:H2'	1:2A:892:G:H8	1.79	0.47
1:2A:995:C:H5"	15:2U:54:LYS:HG2	1.96	0.47
1:2A:2014:A:H5'	17:2W:94:ASP:OD1	2.15	0.47
1:2A:2206:G:H5"	1:2A:2207:G:N7	2.30	0.47
4:2E:101:ARG:HD2	4:2E:169:ASN:C	2.39	0.47
31:2a:766:A:H62	31:2a:813:U:H3	1.63	0.47
31:2a:1132:C:H2'	31:2a:1133:G:H8	1.79	0.47
32:2b:98:LEU:HB2	32:2b:101:MET:SD	2.55	0.47
47:2q:28:PRO:HA	47:2q:35:VAL:HA	1.97	0.47
50:2t:47:GLY:HA2	50:2t:48:LYS:C	2.38	0.47
52:2v:-58:LEU:HB3	52:2v:-55:LEU:HB2	1.96	0.47
1:1A:588:U:H1'	5:1F:90:PHE:CD1	2.48	0.47
1:1A:620:G:N3	1:1A:620:G:H5'	2.30	0.47
1:1A:675:A:H4'	5:1F:67:GLN:OE1	2.15	0.47
1:1A:680:G:C2	1:1A:798:G:C2	3.02	0.47
5:1F:33:LEU:O	5:1F:36:VAL:N	2.45	0.47
5:1F:41:LEU:HD21	5:1F:184:TYR:CE2	2.49	0.47
8:1N:71:ILE:HG21	8:1N:84:LYS:HD3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1O:93:PRO:HG3	9:1O:114:ILE:HG12	1.96	0.47
31:1a:109:A:C6	31:1a:326:G:C6	3.03	0.47
31:1a:790:A:OP1	54:1x:38:A:O2'	2.28	0.47
31:1a:919:A:H2'	31:1a:920:U:C6	2.50	0.47
31:1a:1095:U:OP1	31:1a:1108:G:N2	2.45	0.47
44:1n:2:ALA:O	44:1n:6:LEU:HD22	2.14	0.47
48:1r:58:LEU:HB3	48:1r:62:GLU:HB2	1.96	0.47
53:1w:75:ALA:O	53:1w:79:ILE:N	2.45	0.47
1:2A:569:U:H2'	1:2A:570:G:O4'	2.15	0.47
1:2A:1564:C:H2'	1:2A:1565:C:C6	2.50	0.47
1:2A:1696:G:H3'	1:2A:1697:G:H8	1.79	0.47
3:2D:18:VAL:HG12	3:2D:211:ARG:NH1	2.30	0.47
24:23:16:PRO:HB2	24:23:19:GLN:HG3	1.95	0.47
24:23:29:ARG:HB2	24:23:30:ARG:NH2	2.30	0.47
29:28:26:LYS:HG2	29:28:44:LYS:HA	1.96	0.47
31:2a:184:G:H1	31:2a:193:C:H42	1.63	0.47
31:2a:262:A:C6	31:2a:263:A:C6	3.02	0.47
31:2a:390:C:H4'	46:2p:28:ARG:HH21	1.78	0.47
31:2a:707:C:H2'	31:2a:708:C:C6	2.49	0.47
31:2a:841:U:C5	31:2a:848:C:H1'	2.49	0.47
36:2f:60:PHE:CE2	48:2r:78:LEU:HD21	2.50	0.47
38:2h:121:ASP:OD1	38:2h:121:ASP:N	2.44	0.47
53:2w:94:ASN:HA	53:2w:99:LEU:HD23	1.96	0.47
54:2x:64:A:H2'	54:2x:65:G:O4'	2.14	0.47
1:1A:350:U:H2'	1:1A:351:G:O4'	2.15	0.47
1:1A:952:G:C6	1:1A:953:A:N7	2.83	0.47
1:1A:1915:5MU:H5"	1:1A:1916:A:OP2	2.15	0.47
1:1A:2536:G:C6	1:1A:2537:U:C4	3.02	0.47
1:1A:2577:A:H2'	1:1A:2614:A:N6	2.29	0.47
1:1A:2829:C:H2'	1:1A:2830:G:C8	2.50	0.47
1:1A:2842:G:H2'	1:1A:2843:G:H8	1.80	0.47
3:1D:139:GLY:H	3:1D:165:ILE:HB	1.80	0.47
7:1H:107:VAL:O	7:1H:152:ARG:NH1	2.48	0.47
11:1Q:36:ALA:HB2	11:1Q:103:MET:SD	2.54	0.47
31:1a:1291:G:O2'	39:1i:38:GLN:O	2.30	0.47
31:1a:1415:G:H2'	31:1a:1416:G:H8	1.79	0.47
35:1e:37:ARG:HG2	35:1e:111:GLU:O	2.15	0.47
39:1i:28:VAL:HG22	39:1i:63:ILE:HB	1.95	0.47
43:1m:22:ILE:HD12	43:1m:25:ILE:HD12	1.96	0.47
45:1o:9:GLN:HB3	45:1o:13:GLN:NE2	2.30	0.47
47:1q:45:HIS:CD2	47:1q:65:ILE:HG12	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1r:61:LYS:O	48:1r:65:ILE:HG12	2.15	0.47
52:1v:309:LEU:HD21	52:1v:335:LEU:HD13	1.96	0.47
54:1y:19:G:C6	54:1y:56:C:N4	2.82	0.47
1:2A:647:G:H8	1:2A:647:G:O5'	1.97	0.47
1:2A:828:U:H2'	1:2A:829:A:C5	2.50	0.47
1:2A:1660:C:H2'	1:2A:1661:G:H8	1.79	0.47
1:2A:1797:C:C4	1:2A:1798:U:C4	3.02	0.47
1:2A:2038:G:H2'	1:2A:2039:C:C6	2.49	0.47
1:2A:2439:A:H5"	1:2A:2441:C:O5'	2.14	0.47
1:2A:2612:C:OP2	26:25:2:ALA:N	2.48	0.47
8:2N:4:TYR:CZ	8:2N:6:PRO:HA	2.50	0.47
10:2P:36:LYS:O	10:2P:40:SER:OG	2.26	0.47
31:2a:951:G:OP2	43:2m:102:ARG:NH1	2.47	0.47
35:2e:11:ILE:HD12	35:2e:31:LEU:HD22	1.96	0.47
53:2w:24:ASN:HB3	53:2w:121:TYR:CD2	2.50	0.47
1:1A:518:G:H4'	17:1W:18:ARG:CZ	2.45	0.47
1:1A:634:C:H2'	1:1A:635:C:C6	2.49	0.47
1:1A:751:A:H5'	17:1W:90:ARG:HA	1.96	0.47
1:1A:826:U:H2'	1:1A:828:U:O4'	2.15	0.47
1:1A:904:C:H2'	1:1A:905:U:H6	1.78	0.47
1:1A:1257:C:H4'	5:1F:83:PHE:CE1	2.50	0.47
1:1A:1310:G:OP2	28:17:9:ARG:NE	2.47	0.47
1:1A:1853:A:C8	1:1A:1889:A:N6	2.82	0.47
1:1A:1923:U:H2'	1:1A:1924:C:C6	2.49	0.47
1:1A:2136:C:N4	1:1A:2155:G:N1	2.63	0.47
1:1A:2483:C:N3	11:1Q:124:LYS:NZ	2.62	0.47
1:1A:2547:U:H2'	1:1A:2548:G:H8	1.80	0.47
1:1A:2758:A:C4	7:1H:67:LEU:HD21	2.50	0.47
1:1A:2773:C:H2'	1:1A:2774:C:C6	2.50	0.47
2:1B:1:U:OP1	2:1B:1:U:H4'	2.14	0.47
4:1E:119:ARG:HA	4:1E:160:TYR:CE2	2.49	0.47
5:1F:28:ILE:O	5:1F:30:PRO:HD3	2.15	0.47
11:1Q:10:ARG:CZ	20:1Z:196:VAL:HG11	2.45	0.47
11:1Q:51:ARG:HG3	11:1Q:66:ILE:HD11	1.97	0.47
12:1R:33:ARG:HD2	12:1R:115:GLU:HB3	1.97	0.47
13:1S:84:GLN:HA	13:1S:111:GLU:HB2	1.96	0.47
14:1T:118:ARG:HD3	14:1T:121:ILE:HB	1.95	0.47
29:18:33:ASN:HA	29:18:36:LYS:HD2	1.96	0.47
30:19:4:ARG:O	30:19:36:GLN:HA	2.15	0.47
31:1a:219:C:H2'	31:1a:220:G:O4'	2.14	0.47
31:1a:1021:G:O2'	31:1a:1022:G:O5'	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1e:36:ASP:OD2	35:1e:40:ARG:HB2	2.15	0.47
36:1f:15:ASP:O	36:1f:19:LEU:HB2	2.15	0.47
37:1g:69:VAL:HG21	37:1g:104:LEU:HD11	1.97	0.47
42:1l:41:ARG:CD	53:1w:86:SER:HA	2.39	0.47
45:1o:3:ILE:HD13	45:1o:34:LEU:HG	1.95	0.47
50:1t:47:GLY:HA2	50:1t:48:LYS:C	2.40	0.47
52:1v:638:GLY:C	52:1v:640:ALA:HB3	2.40	0.47
53:1w:174:GLN:HE21	53:1w:174:GLN:HB3	1.47	0.47
1:2A:198:C:H4'	1:2A:2243:U:O3'	2.14	0.47
1:2A:301:G:OP2	19:2Y:84:ARG:NH2	2.29	0.47
1:2A:1247:A:P	10:2P:16:ARG:HH22	2.37	0.47
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.14	0.47
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.80	0.47
1:2A:2039:C:OP1	8:2N:109:LYS:HE3	2.15	0.47
1:2A:2236:C:H2'	1:2A:2237:G:O4'	2.15	0.47
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.14	0.47
1:2A:2491:U:O2'	1:2A:2570:G:OP1	2.24	0.47
5:2F:34:TRP:CZ2	10:2P:8:PRO:HB3	2.50	0.47
10:2P:52:GLU:O	10:2P:54:GLY:N	2.48	0.47
27:26:13:CYS:HB2	27:26:49:HIS:CE1	2.49	0.47
28:27:12:ARG:CZ	28:27:44:PRO:HB3	2.45	0.47
31:2a:1202:G:H1'	44:2n:29:ARG:HD2	1.97	0.47
31:2a:1239:A:H62	31:2a:1299:A:N6	2.13	0.47
31:2a:1340:A:O2'	54:2x:31:A:O2'	2.25	0.47
32:2b:97:TRP:CH2	32:2b:101:MET:HB2	2.50	0.47
34:2d:121:VAL:O	34:2d:134:ASP:HA	2.15	0.47
35:2e:9:LYS:HB2	35:2e:112:LEU:HD11	1.97	0.47
39:2i:33:PHE:HZ	39:2i:46:ALA:HB3	1.80	0.47
43:2m:90:LEU:HD23	43:2m:93:ARG:HE	1.80	0.47
50:2t:73:HIS:O	50:2t:77:ALA:N	2.45	0.47
1:1A:89:G:N1	1:1A:90:U:O4	2.48	0.47
1:1A:857:C:H1'	21:10:26:TYR:CE1	2.50	0.47
1:1A:1409:C:H2'	1:1A:1410:G:C8	2.49	0.47
1:1A:2121:G:H1	1:1A:2177:C:N4	2.12	0.47
5:1F:18:ARG:C	5:1F:19:GLU:HG2	2.39	0.47
5:1F:116:ASP:CG	10:1P:1:MET:HB2	2.39	0.47
6:1G:123:ASN:C	6:1G:125:PHE:H	2.22	0.47
31:1a:101:A:H2'	31:1a:102:G:C8	2.49	0.47
31:1a:986:A:H4'	49:1s:55:LYS:HE3	1.95	0.47
32:1b:12:GLU:O	32:1b:15:VAL:HG22	2.15	0.47
32:1b:175:ARG:O	32:1b:179:LYS:HG3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1d:88:VAL:HA	35:1e:97:GLY:HA3	1.96	0.47
37:1g:39:ALA:HA	37:1g:42:ILE:HD12	1.97	0.47
37:1g:118:VAL:HG13	37:1g:122:HIS:CE1	2.49	0.47
43:1m:39:ILE:HD12	43:1m:56:LEU:HD13	1.96	0.47
45:1o:54:ARG:HG2	45:1o:58:MET:HE2	1.95	0.47
52:1v:-41:ALA:HA	52:1v:-37:LEU:HB2	1.97	0.47
52:1v:148:LEU:O	52:1v:152:THR:OG1	2.21	0.47
53:1w:15:GLN:O	53:1w:19:GLU:HG3	2.15	0.47
53:1w:30:THR:C	53:1w:32:ARG:H	2.23	0.47
1:2A:225:A:O2'	1:2A:257:A:H4'	2.15	0.47
1:2A:242:G:H5"	29:28:64:TYR:CE2	2.49	0.47
1:2A:646:A:H2'	1:2A:647:G:O4'	2.15	0.47
1:2A:827:U:O2'	1:2A:2068:U:C2	2.66	0.47
1:2A:1638:C:O2	1:2A:2698:U:O2'	2.32	0.47
1:2A:2282:G:H4'	1:2A:2389:G:O2'	2.14	0.47
1:2A:2505:G:O6	1:2A:2576:G:H2'	2.15	0.47
17:2W:60:ASN:HD22	17:2W:60:ASN:N	2.11	0.47
31:2a:922:G:H4'	35:2e:20:GLN:HA	1.97	0.47
32:2b:73:THR:HA	32:2b:94:ASN:O	2.14	0.47
33:2c:40:ARG:NH2	33:2c:55:VAL:O	2.48	0.47
53:2w:52:LEU:HD11	53:2w:79:ILE:HG23	1.95	0.47
1:1A:1047:G:O2'	1:1A:1048:A:H8	1.98	0.47
1:1A:1203:G:O2'	1:1A:1242:A:N6	2.48	0.47
1:1A:2183:C:O2'	1:1A:2184:G:OP1	2.29	0.47
3:1D:8:PRO:HB3	3:1D:14:ARG:HA	1.97	0.47
24:13:8:LEU:HD13	24:13:23:LEU:HD21	1.95	0.47
25:14:69:LYS:HD2	49:1s:20:LEU:HD13	1.97	0.47
31:1a:176:C:H2'	31:1a:177:C:C6	2.50	0.47
31:1a:304:U:H2'	31:1a:305:G:C8	2.50	0.47
31:1a:969:A:OP1	40:1j:55:LYS:NZ	2.29	0.47
31:1a:1076:C:H2'	31:1a:1077:G:H8	1.80	0.47
31:1a:1101:A:H4'	31:1a:1102:A:O5'	2.15	0.47
31:1a:1518:MA6:H93	31:1a:1519:MA6:H92	1.96	0.47
32:1b:7:VAL:N	32:1b:8:LYS:HZ2	2.12	0.47
52:1v:188:TYR:OH	52:1v:268:GLY:N	2.34	0.47
52:1v:423:LYS:O	52:1v:427:ALA:N	2.47	0.47
1:2A:834:C:H2'	1:2A:835:A:C8	2.50	0.47
1:2A:1129:A:N6	1:2A:2491:U:OP1	2.43	0.47
1:2A:1365:A:O4'	22:21:41:ARG:NH2	2.48	0.47
1:2A:2061:G:H5"	1:2A:2503:2MA:N1	2.30	0.47
5:2F:123:LEU:HD12	5:2F:124:LEU:H	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.96	0.47
6:2G:179:PRO:HB2	25:24:42:PHE:HE2	1.79	0.47
12:2R:104:ARG:HG3	12:2R:111:LEU:HD11	1.97	0.47
30:29:25:VAL:HB	30:29:34:GLN:HB2	1.96	0.47
31:2a:600:C:OP1	38:2h:97:VAL:HG12	2.15	0.47
31:2a:1357:A:O2'	44:2n:34:TYR:CZ	2.68	0.47
32:2b:28:PHE:CD1	32:2b:194:PRO:HG3	2.49	0.47
40:2j:74:ILE:HD13	40:2j:81:THR:HG21	1.97	0.47
46:2p:22:THR:OG1	46:2p:23:ASP:N	2.47	0.47
49:2s:11:VAL:O	49:2s:13:ASP:N	2.44	0.47
1:1A:1339:G:N2	1:1A:1603:A:H1'	2.30	0.47
1:1A:1558:A:H4'	1:1A:1559:G:H2'	1.97	0.47
1:1A:1772:G:N1	1:1A:1980:G:C6	2.83	0.47
1:1A:2046:G:H5'	26:15:19:ARG:HG3	1.97	0.47
1:1A:2748:A:O2'	7:1H:63:SER:O	2.30	0.47
6:1G:60:LEU:HD12	6:1G:63:ILE:HD12	1.96	0.47
12:1R:96:ARG:HD2	12:1R:115:GLU:OE2	2.15	0.47
20:1Z:76:LEU:HD23	20:1Z:83:PRO:HA	1.97	0.47
24:13:3:ARG:HD3	24:13:60:GLU:OE1	2.15	0.47
31:1a:43:C:OP1	46:1p:12:LYS:HD2	2.15	0.47
31:1a:1363(A):A:H4'	31:1a:1364:U:H2'	1.97	0.47
1:2A:325:G:H2'	1:2A:326:G:C8	2.50	0.47
1:2A:583:G:H1	1:2A:1257:C:H42	1.61	0.47
1:2A:1459:G:H2'	1:2A:1461:G:OP2	2.15	0.47
1:2A:1935:G:N2	1:2A:1964:G:OP2	2.48	0.47
1:2A:2327:A:H5'	20:2Z:201:LYS:CE	2.43	0.47
1:2A:2432:A:C6	22:21:33:LYS:HB3	2.50	0.47
3:2D:223:GLY:HA3	3:2D:231:HIS:CE1	2.50	0.47
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.80	0.47
5:2F:116:ASP:O	5:2F:120:GLU:HG2	2.15	0.47
10:2P:84:ASN:OD1	10:2P:117:GLU:HB2	2.15	0.47
19:2Y:14:LEU:HD23	19:2Y:82:PRO:HG3	1.98	0.47
19:2Y:49:VAL:HG21	19:2Y:55:TYR:CD2	2.49	0.47
31:2a:1127:G:H1	31:2a:1145:C:H42	1.63	0.47
31:2a:1236:A:H4'	31:2a:1304:G:H4'	1.97	0.47
33:2c:120:VAL:O	33:2c:124:ILE:HG23	2.15	0.47
42:2l:5:PRO:HG2	42:2l:15:ARG:HH22	1.80	0.47
52:2v:238:THR:HG23	52:2v:241:GLU:HB2	1.98	0.47
52:2v:534:ILE:HD11	52:2v:570:GLY:HA3	1.97	0.47
1:1A:896:A:H5"	20:1Z:147:GLY:HA3	1.97	0.46
1:1A:1804:C:N4	1:1A:1813:G:H1	2.12	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2527:C:H2'	1:1A:2528:U:O4'	2.16	0.46
3:1D:71:ASP:HB3	3:1D:103:ARG:HH12	1.80	0.46
5:1F:12:LEU:HD11	5:1F:146:ALA:HA	1.97	0.46
11:1Q:60:ARG:HE	20:1Z:180:VAL:HG23	1.80	0.46
19:1Y:55:TYR:CE1	19:1Y:61:ILE:HG21	2.50	0.46
21:10:50:ASN:ND2	21:10:81:VAL:O	2.40	0.46
31:1a:352:C:O2	31:1a:355:C:N4	2.47	0.46
31:1a:1491:G:N7	31:1a:1492:A:N6	2.60	0.46
52:1v:92:ILE:O	52:1v:95:GLU:HG2	2.15	0.46
52:1v:131:PRO:HG2	52:1v:281:PRO:HG2	1.97	0.46
52:1v:655:TYR:HA	52:1v:658:ASP:HB2	1.95	0.46
54:1x:5:G:H2'	54:1x:6:G:O4'	2.15	0.46
1:2A:99:U:H4'	1:2A:100:G:H5'	1.96	0.46
1:2A:586:A:N1	1:2A:809:G:O2'	2.44	0.46
1:2A:1010:A:H1'	1:2A:1153:C:H1'	1.96	0.46
1:2A:1216:G:OP2	15:2U:12:ARG:NH2	2.48	0.46
1:2A:1216:G:P	15:2U:12:ARG:HH21	2.38	0.46
1:2A:1836:C:H42	1:2A:1904:G:H1	1.63	0.46
1:2A:1877:A:C5	1:2A:1878:G:H1'	2.50	0.46
1:2A:2733:A:N1	4:2E:203:LYS:HA	2.30	0.46
10:2P:66:GLY:O	10:2P:68:GLN:NE2	2.47	0.46
31:2a:96:U:H2'	31:2a:97:G:C8	2.50	0.46
31:2a:411:A:OP1	34:2d:30:LYS:NZ	2.30	0.46
31:2a:861:G:H2'	31:2a:862:C:C6	2.50	0.46
31:2a:985:C:H2'	31:2a:986:A:C8	2.49	0.46
31:2a:1363(A):A:H4'	31:2a:1364:U:H2'	1.97	0.46
38:2h:30:ARG:O	38:2h:34:GLU:HG2	2.14	0.46
42:2l:109:GLY:HA3	42:2l:121:GLY:O	2.16	0.46
43:2m:31:LYS:HA	43:2m:34:LEU:HD12	1.97	0.46
1:1A:26:G:O3'	1:1A:1260:G:H4'	2.15	0.46
1:1A:126:A:O5'	28:17:19:ARG:HG3	2.16	0.46
1:1A:794:G:C5	1:1A:795:C:C4	3.03	0.46
1:1A:1173:G:N1	1:1A:1176:G:OP2	2.46	0.46
1:1A:1354:A:C8	1:1A:1355:G:C8	3.03	0.46
1:1A:1675:C:H2'	1:1A:1676:A:O4'	2.15	0.46
1:1A:2118:U:OP1	1:1A:2148:G:O2'	2.21	0.46
1:1A:2695:C:H2'	1:1A:2696:U:C6	2.50	0.46
10:1P:59:LEU:HD11	29:18:10:ALA:HB2	1.97	0.46
15:1U:47:TYR:HA	15:1U:50:ARG:CZ	2.46	0.46
16:1V:43:GLU:OE1	16:1V:43:GLU:N	2.49	0.46
23:12:52:ASP:O	23:12:56:GLN:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:456:C:N4	31:1a:475:G:H1	2.09	0.46
31:1a:1507:A:H2'	31:1a:1508:G:C8	2.50	0.46
32:1b:224:GLN:HG2	32:1b:229:VAL:HG22	1.97	0.46
34:1d:20:TYR:HA	58:1d:304:SF4:S1	2.55	0.46
41:1k:54:ARG:NH1	54:1y:39:PSU:O2'	2.49	0.46
52:1v:20:HIS:CE1	52:1v:116:PRO:HD2	2.49	0.46
53:1w:129:ILE:HD12	53:1w:169:ILE:HD13	1.96	0.46
53:1w:156:ARG:NE	53:1w:160:GLU:HB2	2.30	0.46
1:2A:1337:G:H2'	1:2A:1338:G:H8	1.79	0.46
1:2A:1486:A:H2'	1:2A:1487:G:C8	2.50	0.46
1:2A:2410:G:H2'	1:2A:2411:A:O4'	2.15	0.46
1:2A:2659:G:O3'	7:2H:175:LYS:NZ	2.47	0.46
5:2F:36:VAL:HG11	5:2F:183:VAL:HG11	1.97	0.46
47:2q:45:HIS:CD2	47:2q:47:PRO:HD3	2.50	0.46
52:2v:-29:LEU:HG	52:2v:-27:THR:HG23	1.98	0.46
54:2x:19:G:H5'	54:2x:60:U:O4	2.14	0.46
1:1A:646:A:H2'	1:1A:647:G:C8	2.50	0.46
1:1A:680:G:H8	1:1A:680:G:O5'	1.98	0.46
1:1A:1855:G:O6	1:1A:1888:G:N2	2.48	0.46
1:1A:2167:U:O2	1:1A:2167:U:H2'	2.14	0.46
8:1N:61:ARG:HD3	8:1N:61:ARG:HA	1.45	0.46
15:1U:106:PHE:O	15:1U:110:VAL:HG23	2.15	0.46
18:1X:60:ARG:HH12	28:17:47:ARG:HH12	1.63	0.46
31:1a:138:G:H2'	31:1a:139:G:C8	2.51	0.46
31:1a:1321:C:O2	49:1s:77:THR:HG21	2.15	0.46
37:1g:26:PHE:CE2	37:1g:30:ILE:HD11	2.50	0.46
46:1p:52:ASP:O	46:1p:54:GLU:N	2.48	0.46
47:1q:6:LEU:HD23	47:1q:23:VAL:HG11	1.97	0.46
50:1t:45:GLN:N	50:1t:91:LEU:HD13	2.30	0.46
52:1v:126:GLU:OE2	52:1v:132:ARG:NH2	2.48	0.46
52:1v:639:ASN:HA	52:1v:640:ALA:O	2.15	0.46
1:2A:552:G:H2'	1:2A:553:G:C8	2.50	0.46
1:2A:707:G:H2'	1:2A:708:C:O4'	2.15	0.46
1:2A:1256:G:H21	5:2F:82:ILE:HG13	1.79	0.46
1:2A:1613:G:C2	1:2A:1619:G:C5	3.04	0.46
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.14	0.46
5:2F:117:ARG:NH1	5:2F:120:GLU:OE2	2.49	0.46
5:2F:135:LYS:HD2	5:2F:135:LYS:N	2.31	0.46
10:2P:113:LYS:HA	10:2P:129:ALA:O	2.16	0.46
20:2Z:156:LYS:HD3	20:2Z:156:LYS:H	1.79	0.46
29:28:14:VAL:HG22	29:28:24:ALA:HB2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:243:A:H4'	31:2a:244:U:H5"	1.97	0.46
31:2a:1240:U:N3	37:2g:30:ILE:O	2.45	0.46
31:2a:1255:G:H2'	31:2a:1258:G:H21	1.79	0.46
35:2e:102:ALA:HB1	35:2e:106:PRO:HB2	1.97	0.46
38:2h:19:VAL:HG23	38:2h:21:LYS:HG3	1.98	0.46
39:2i:12:GLU:O	39:2i:68:GLY:N	2.48	0.46
40:2j:62:HIS:HB3	44:2n:59:ALA:HB3	1.98	0.46
41:2k:21:ILE:HD12	41:2k:84:VAL:HG22	1.98	0.46
49:2s:69:HIS:HB2	49:2s:74:PHE:CZ	2.50	0.46
52:2v:137:ASN:HD21	52:2v:263:ALA:HB3	1.80	0.46
54:2y:72:C:H2'	54:2y:73:A:O4'	2.15	0.46
1:1A:704:G:O2'	1:1A:726:G:N2	2.46	0.46
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.15	0.46
1:1A:2124:G:H1	1:1A:2174:C:N4	2.12	0.46
1:1A:2347:C:OP1	27:16:38:LYS:NZ	2.43	0.46
3:1D:26:LYS:O	3:1D:83:GLU:HB3	2.16	0.46
6:1G:161:THR:OG1	6:1G:172:LEU:CD2	2.64	0.46
7:1H:126:PRO:HD2	7:1H:130:ARG:O	2.15	0.46
8:1N:35:ARG:HH21	8:1N:42:TRP:HZ2	1.63	0.46
10:1P:87:ASP:O	10:1P:90:ARG:NH1	2.49	0.46
19:1Y:14:LEU:HB2	19:1Y:75:ILE:HD11	1.97	0.46
31:1a:235:C:H2'	31:1a:236:G:H8	1.80	0.46
31:1a:271:C:H2'	31:1a:272:C:C6	2.51	0.46
31:1a:603:U:H2'	31:1a:604:G:C8	2.50	0.46
34:1d:177:ASP:HB3	34:1d:182:LYS:HG3	1.96	0.46
52:1v:9:LEU:O	52:1v:283:PRO:HD2	2.15	0.46
52:1v:133:ILE:HD13	52:1v:280:LEU:HD21	1.97	0.46
1:2A:191:A:H2'	1:2A:192:C:C6	2.48	0.46
1:2A:1125:G:H5'	30:29:37:GLY:HA2	1.97	0.46
1:2A:1401:G:H2'	1:2A:1402:C:C6	2.50	0.46
1:2A:1464:C:H2'	1:2A:1465:G:H8	1.80	0.46
1:2A:1530:C:N4	1:2A:1539:G:H1	2.13	0.46
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.50	0.46
1:2A:2279:G:C2	1:2A:2280:G:H1'	2.50	0.46
2:2B:83:G:H4'	24:23:52:HIS:CG	2.50	0.46
3:2D:68:LYS:C	3:2D:70:TRP:H	2.24	0.46
7:2H:54:ARG:HH11	7:2H:65:HIS:CE1	2.32	0.46
22:21:60:PHE:HE2	22:21:95:LEU:HD11	1.80	0.46
31:2a:253:U:H2'	31:2a:254:G:C8	2.51	0.46
31:2a:294:U:H2'	31:2a:295:C:C6	2.51	0.46
31:2a:590:C:OP1	38:2h:30:ARG:N	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:750:G:H21	45:2o:23:GLY:HA3	1.79	0.46
52:2v:91:THR:C	52:2v:93:GLU:H	2.23	0.46
52:2v:639:ASN:N	52:2v:640:ALA:HB3	2.30	0.46
1:1A:315:G:H2'	1:1A:316:C:C6	2.49	0.46
1:1A:319:C:C2	1:1A:333:G:N2	2.84	0.46
1:1A:1050:A:C2	1:1A:2751:G:C4	3.03	0.46
1:1A:1937:A:H1'	1:1A:1939:5MU:H71	1.98	0.46
1:1A:2692:C:H2'	1:1A:2693:A:C8	2.51	0.46
1:1A:2697:G:H2'	1:1A:2698:U:O4'	2.15	0.46
1:1A:2790:A:N3	1:1A:2790:A:C3'	2.77	0.46
4:1E:104:VAL:HG21	4:1E:188:VAL:HG22	1.97	0.46
6:1G:33:ARG:CZ	6:1G:162:THR:HG21	2.45	0.46
20:1Z:95:PRO:HA	20:1Z:129:SER:HA	1.98	0.46
31:1a:1010:G:H22	31:1a:1020:U:H1'	1.81	0.46
31:1a:1409:C:H2'	31:1a:1410:G:C8	2.51	0.46
32:1b:178:ARG:NH1	32:1b:198:ASP:OD1	2.45	0.46
34:1d:26:CYS:HB3	58:1d:304:SF4:S1	2.56	0.46
45:1o:18:PHE:O	45:1o:20:GLY:N	2.48	0.46
52:1v:138:LYS:HG2	59:1v:704:GDP:C5	2.50	0.46
52:1v:443:HIS:O	52:1v:447:GLY:HA2	2.16	0.46
1:2A:348:G:H2'	1:2A:349:G:H8	1.79	0.46
1:2A:491:G:H2'	1:2A:492:A:H8	1.80	0.46
1:2A:627:A:C6	10:2P:115:LEU:HD13	2.51	0.46
1:2A:996:A:H2'	1:2A:997:G:H8	1.81	0.46
1:2A:2135:A:C4	1:2A:2136:C:H5	2.33	0.46
1:2A:2466:C:OP1	30:29:4:ARG:HB2	2.16	0.46
2:2B:7:G:H1	2:2B:114:C:N4	2.10	0.46
2:2B:94:C:H2'	2:2B:95:C:C6	2.51	0.46
4:2E:1:MET:O	4:2E:84:PHE:HB2	2.15	0.46
31:2a:1381:U:O4'	37:2g:79:ARG:NE	2.39	0.46
31:2a:1412:C:H2'	31:2a:1413:A:H8	1.80	0.46
52:2v:199:ILE:CG2	52:2v:200:PRO:CD	2.94	0.46
53:2w:84:ARG:O	53:2w:86:SER:N	2.49	0.46
1:1A:9:U:N3	1:1A:2629:A:C2	2.84	0.46
1:1A:19:C:N3	1:1A:521:G:N2	2.59	0.46
1:1A:127:A:H5"	1:1A:128:C:O4'	2.16	0.46
1:1A:150:C:H42	1:1A:176:G:H1	1.64	0.46
1:1A:1375:C:H2'	1:1A:1376:C:H6	1.81	0.46
1:1A:2287:A:O2'	1:1A:2288:A:H3'	2.16	0.46
1:1A:2579:C:H2'	1:1A:2580:U:O4'	2.15	0.46
1:1A:2809:A:C6	1:1A:2810:A:C6	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:89:G:C6	2:1B:90:A:C6	3.04	0.46
9:1O:24:VAL:HA	9:1O:39:ILE:HG22	1.98	0.46
10:1P:30:THR:CG2	10:1P:34:GLY:N	2.79	0.46
25:14:57:GLU:HA	25:14:58:ARG:HA	1.62	0.46
31:1a:715:A:OP1	31:1a:805:C:O2'	2.25	0.46
31:1a:954:G:H2'	31:1a:955:U:O4'	2.15	0.46
31:1a:1025:U:O2	31:1a:1036:G:C6	2.69	0.46
31:1a:1347:G:H5"	39:1i:107:ARG:HB3	1.96	0.46
32:1b:60:ASP:O	32:1b:64:ARG:HG2	2.15	0.46
40:1j:34:VAL:HA	40:1j:74:ILE:HA	1.97	0.46
49:1s:50:ALA:HB1	49:1s:57:HIS:HB3	1.98	0.46
52:1v:1:LEU:O	52:1v:5:LEU:HG	2.15	0.46
52:1v:438:PHE:HB2	52:1v:453:GLY:HA2	1.98	0.46
1:2A:520:G:H2'	1:2A:521:G:C8	2.51	0.46
1:2A:997:G:H5"	15:2U:92:ARG:HH12	1.80	0.46
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.31	0.46
1:2A:2335:A:C8	1:2A:2337:G:C5	3.03	0.46
4:2E:175:VAL:O	4:2E:177:PRO:HD3	2.15	0.46
20:2Z:18:LEU:HB2	20:2Z:25:PRO:HG3	1.97	0.46
31:2a:56:U:H2'	31:2a:57:G:C8	2.51	0.46
31:2a:174:C:H2'	31:2a:175:C:O4'	2.16	0.46
31:2a:580:U:H2'	31:2a:581:G:O4'	2.16	0.46
39:2i:9:ARG:HG2	39:2i:14:VAL:HG12	1.96	0.46
42:2l:24:VAL:HB	42:2l:27:LEU:HD22	1.97	0.46
42:2l:42:THR:HG22	42:2l:54:LYS:HA	1.98	0.46
51:2u:6:ARG:HE	51:2u:15:ARG:NH2	2.14	0.46
1:1A:48:G:C2	1:1A:178:G:C6	3.04	0.46
1:1A:792:G:N7	1:1A:2440:C:H1'	2.31	0.46
1:1A:2330:G:O2'	21:10:41:ARG:O	2.29	0.46
1:1A:2364:C:H4'	21:10:56:ASP:OD1	2.16	0.46
4:1E:24:THR:HG21	4:1E:188:VAL:HG23	1.96	0.46
8:1N:4:TYR:HB2	15:1U:101:ARG:NH1	2.31	0.46
31:1a:60:A:H4'	31:1a:61:G:H5'	1.96	0.46
31:1a:1438:G:H2'	31:1a:1439:C:C6	2.51	0.46
33:1c:60:ALA:HB3	33:1c:63:ASN:HD21	1.80	0.46
40:1j:11:PHE:CE1	40:1j:67:THR:HG22	2.45	0.46
40:1j:23:ILE:HG21	40:1j:72:VAL:HG21	1.98	0.46
52:1v:147:TRP:CE3	52:1v:150:ILE:HD12	2.51	0.46
52:1v:641:GLN:HE21	52:1v:641:GLN:HB2	1.51	0.46
54:1y:58:A:O2'	54:1y:59:U:H5'	2.15	0.46
1:2A:141:A:C6	1:2A:142:A:N1	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:187:G:H1	1:2A:209:C:H42	1.64	0.46
1:2A:251:A:C5	1:2A:252:G:H1'	2.50	0.46
1:2A:348:G:H2'	1:2A:349:G:C8	2.51	0.46
1:2A:774:A:H2'	1:2A:774:A:N3	2.31	0.46
1:2A:900:A:O2'	1:2A:901:A:OP1	2.25	0.46
1:2A:2011:U:H2'	1:2A:2012:G:O4'	2.16	0.46
1:2A:2641:G:H5"	8:2N:76:SER:CB	2.45	0.46
8:2N:96:GLU:O	8:2N:100:GLU:HG3	2.15	0.46
16:2V:66:ARG:CZ	16:2V:88:ARG:HD3	2.46	0.46
19:2Y:87:LYS:HA	19:2Y:96:ILE:O	2.15	0.46
22:21:46:LEU:O	22:21:47:GLN:NE2	2.48	0.46
31:2a:139:G:H2'	31:2a:140:A:C8	2.50	0.46
31:2a:192:U:H2'	31:2a:193:C:C6	2.51	0.46
31:2a:806:C:H2'	31:2a:807:A:C8	2.51	0.46
31:2a:966:M2G:OP2	31:2a:966:M2G:H8	1.99	0.46
31:2a:987:G:H1	31:2a:1218:C:N4	2.11	0.46
31:2a:1370:G:N7	39:2i:109:VAL:HG11	2.31	0.46
33:2c:189:ALA:HB2	33:2c:198:VAL:HG23	1.97	0.46
1:1A:8:A:H2'	1:1A:9:U:H6	1.81	0.46
1:1A:308:G:C4	1:1A:501:A:C8	3.03	0.46
1:1A:1131:G:H4'	8:1N:82:LEU:HD22	1.97	0.46
1:1A:1973:G:H2'	1:1A:1974:C:C6	2.51	0.46
5:1F:170:LEU:HD12	5:1F:170:LEU:HA	1.68	0.46
6:1G:59:GLU:O	6:1G:63:ILE:HG13	2.16	0.46
6:1G:131:TYR:HE2	6:1G:133:LEU:CD2	2.15	0.46
8:1N:70:LYS:HB3	8:1N:87:LEU:HB2	1.98	0.46
23:12:33:MET:HE2	23:12:33:MET:HB3	1.66	0.46
27:16:14:THR:HG22	27:16:48:VAL:O	2.15	0.46
29:18:62:LEU:HB3	29:18:65:GLU:HG2	1.98	0.46
31:1a:258:G:H2'	31:1a:259:G:H8	1.80	0.46
31:1a:551:U:H2'	31:1a:552:U:C6	2.50	0.46
31:1a:665:A:N3	31:1a:732:C:H2'	2.30	0.46
38:1h:121:ASP:OD1	38:1h:121:ASP:N	2.47	0.46
45:1o:61:GLY:O	45:1o:65:ARG:HG3	2.16	0.46
52:1v:162:VAL:O	52:1v:164:MET:HG2	2.16	0.46
52:1v:547:GLU:O	52:1v:551:GLN:NE2	2.49	0.46
1:2A:792:G:N3	1:2A:2072:G:O2'	2.39	0.46
1:2A:918:A:C6	1:2A:919:G:H1'	2.51	0.46
1:2A:1472:A:H2'	1:2A:1473:G:O4'	2.16	0.46
2:2B:18:G:H2'	2:2B:19:G:H8	1.81	0.46
14:2T:39:ARG:NH1	14:2T:41:ARG:HD3	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:15:G:H2'	31:2a:16:A:H8	1.81	0.46
31:2a:32:A:H61	31:2a:552:U:H3	1.64	0.46
31:2a:69:G:H2'	31:2a:70:G:C8	2.49	0.46
31:2a:972:C:O2'	40:2j:55:LYS:O	2.34	0.46
32:2b:218:ALA:O	32:2b:222:ILE:HG23	2.16	0.46
35:2e:82:VAL:HB	35:2e:89:ILE:HG22	1.97	0.46
36:2f:33:TYR:HA	36:2f:71:ARG:HH11	1.80	0.46
39:2i:28:VAL:HA	39:2i:63:ILE:O	2.16	0.46
53:2w:29:ARG:HH21	53:2w:106:LEU:HD12	1.81	0.46
1:1A:132:G:C6	1:1A:133:C:C4	3.04	0.46
1:1A:391:G:O2'	1:1A:410:G:OP1	2.26	0.46
1:1A:565:C:H2'	1:1A:566:U:O4'	2.15	0.46
1:1A:579:G:H2'	1:1A:580:C:H6	1.76	0.46
1:1A:677:A:H2'	1:1A:678:C:H6	1.81	0.46
1:1A:857:C:H5"	21:10:77:ARG:NH2	2.31	0.46
1:1A:1305:C:C2	1:1A:1624:G:C2	3.04	0.46
1:1A:1826:G:H4'	3:1D:242:ARG:HH21	1.81	0.46
1:1A:2049:G:N2	1:1A:2619:C:N3	2.59	0.46
1:1A:2512:C:O2'	4:1E:154:LYS:NZ	2.35	0.46
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.51	0.46
1:1A:2633:G:H1	1:1A:2785:C:H42	1.62	0.46
1:1A:2661:G:H2'	1:1A:2662:A:C8	2.51	0.46
5:1F:53:THR:HG22	5:1F:56:GLU:CD	2.41	0.46
5:1F:72:ARG:HE	5:1F:72:ARG:HB3	1.54	0.46
5:1F:125:LEU:HD11	5:1F:199:TRP:CE3	2.51	0.46
12:1R:97:VAL:O	12:1R:98:LEU:HD23	2.16	0.46
20:1Z:151:HIS:HA	20:1Z:170:THR:HA	1.97	0.46
21:10:24:LYS:O	21:10:25:ARG:HD3	2.15	0.46
31:1a:17:U:O2'	31:1a:1079:G:N3	2.47	0.46
31:1a:46:G:C2	31:1a:396:G:C2	3.03	0.46
31:1a:587:G:N2	31:1a:754:C:OP2	2.49	0.46
31:1a:656:C:H4'	45:1o:62:GLN:NE2	2.30	0.46
31:1a:1235:U:H2'	31:1a:1236:A:O4'	2.16	0.46
31:1a:1500:A:H5"	31:1a:1508:G:H5"	1.98	0.46
35:1e:152:ARG:HD2	38:1h:42:GLU:O	2.16	0.46
46:1p:27:LYS:HG3	46:1p:30:GLY:HA3	1.97	0.46
50:1t:45:GLN:HA	50:1t:91:LEU:HD22	1.98	0.46
52:1v:-13:GLN:O	52:1v:-9:LEU:N	2.49	0.46
52:1v:91:THR:C	52:1v:93:GLU:H	2.24	0.46
52:1v:114:VAL:HG13	52:1v:156:ARG:NH1	2.31	0.46
54:1y:53:G:N1	54:1y:61:C:N4	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:71:A:H5”	1:2A:73:A:C8	2.50	0.46
1:2A:619:G:P	1:2A:620:G:H22	2.39	0.46
1:2A:744:G:H1	1:2A:753:C:N4	2.13	0.46
1:2A:1359:A:N6	1:2A:1372:U:H3	2.13	0.46
1:2A:1363:C:O2’	1:2A:1809:A:N3	2.46	0.46
1:2A:1567:A:OP1	3:2D:60:ARG:NE	2.32	0.46
1:2A:1653:G:C5	12:2R:9:LYS:HD2	2.51	0.46
3:2D:14:ARG:HB2	3:2D:15:PHE:CD2	2.51	0.46
3:2D:124:PRO:O	3:2D:126:GLN:N	2.48	0.46
16:2V:52:VAL:HG23	16:2V:55:ALA:HB3	1.98	0.46
17:2W:58:ALA:HB1	17:2W:69:LEU:HD21	1.98	0.46
19:2Y:56:PRO:C	19:2Y:58:GLY:H	2.23	0.46
31:2a:534:U:H5”	31:2a:535:A:OP2	2.16	0.46
31:2a:667:G:H4’	45:2o:51:HIS:CE1	2.51	0.46
31:2a:778:G:C6	31:2a:779:C:C4	3.04	0.46
31:2a:997:U:O2	31:2a:1044:A:N1	2.49	0.46
31:2a:1058:G:N2	31:2a:1199:U:O2	2.42	0.46
31:2a:1133:G:H1	31:2a:1141:C:N4	2.13	0.46
32:2b:163:PHE:HA	32:2b:185:ILE:O	2.16	0.46
32:2b:230:VAL:HG22	32:2b:231:GLU:H	1.80	0.46
38:2h:96:GLY:H	38:2h:99:GLU:CD	2.24	0.46
52:2v:-38:TYR:HD2	52:2v:-37:LEU:HD23	1.81	0.46
52:2v:99:ARG:NH2	52:2v:312:LEU:HG	2.31	0.46
1:1A:463:G:N1	1:1A:467:G:C6	2.84	0.46
1:1A:768:G:C4	1:1A:769:G:C8	3.04	0.46
1:1A:1859:A:N6	1:1A:1883:G:O2’	2.49	0.46
1:1A:1998:G:O2’	1:1A:2724:C:O2’	2.28	0.46
3:1D:261:LYS:NZ	3:1D:263:ARG:HB2	2.30	0.46
3:1D:273:ARG:HG2	3:1D:274:ARG:H	1.81	0.46
7:1H:4:ILE:O	7:1H:69:ARG:HD2	2.16	0.46
15:1U:59:ARG:O	15:1U:63:VAL:HG23	2.16	0.46
31:1a:455:C:H2’	31:1a:456:C:C6	2.51	0.46
31:1a:1226:C:C4’	49:1s:80:TYR:OH	2.61	0.46
34:1d:31:CYS:SG	34:1d:33:MET:N	2.89	0.46
34:1d:53:ASP:HB3	34:1d:57:ARG:HH22	1.81	0.46
35:1e:110:LEU:HD13	35:1e:118:ILE:HD13	1.98	0.46
42:1l:59:ARG:HA	42:1l:65:GLU:HA	1.97	0.46
1:2A:249:C:O2	29:28:12:LYS:NZ	2.45	0.46
1:2A:1309:G:H1	1:2A:1605:C:H42	1.64	0.46
1:2A:2334:G:H21	13:2S:16:ASN:CG	2.24	0.46
1:2A:2404:C:N4	1:2A:2413:G:H1	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2637:U:H1'	1:2A:2782:G:N2	2.31	0.46
7:2H:129:THR:O	7:2H:129:THR:OG1	2.31	0.46
9:2O:1:MET:HE3	9:2O:32:TYR:CE1	2.50	0.46
13:2S:94:TYR:CZ	13:2S:99:LYS:HG3	2.50	0.46
20:2Z:134:PRO:C	20:2Z:136:PHE:H	2.23	0.46
27:26:28:ARG:NH2	54:2x:61:C:O2'	2.49	0.46
28:27:5:TRP:C	28:27:6:GLN:HE21	2.23	0.46
33:2c:8:ILE:HG23	33:2c:16:ARG:HD2	1.98	0.46
35:2e:110:LEU:HD13	35:2e:118:ILE:HG21	1.98	0.46
38:2h:44:PHE:CD1	38:2h:80:ILE:HG12	2.50	0.46
52:2v:127:LYS:HA	52:2v:519:ARG:O	2.15	0.46
54:2x:25:C:HO2'	54:2x:26:A:H8	1.62	0.46
1:1A:211:A:H2'	1:1A:212:G:H8	1.79	0.45
1:1A:244:A:C2	1:1A:255:A:C4	3.03	0.45
1:1A:484:C:H2'	1:1A:485:C:H6	1.80	0.45
1:1A:839:U:C4	1:1A:939:G:O6	2.69	0.45
1:1A:1041:C:H2'	1:1A:1042:G:C8	2.51	0.45
1:1A:1424:G:H2'	1:1A:1425:G:O4'	2.16	0.45
1:1A:2547:U:H2'	1:1A:2548:G:C8	2.50	0.45
1:1A:2648:C:H2'	1:1A:2649:U:C6	2.51	0.45
4:1E:119:ARG:HA	4:1E:160:TYR:CD2	2.51	0.45
20:1Z:201:LYS:HA	20:1Z:201:LYS:HD2	1.47	0.45
27:16:12:GLU:OE2	27:16:17:LYS:HD2	2.17	0.45
32:1b:180:LEU:HB2	32:1b:182:ILE:HG13	1.98	0.45
37:1g:69:VAL:HG13	37:1g:138:LYS:HB2	1.98	0.45
42:1l:5:PRO:HG2	42:1l:10:LEU:HD21	1.98	0.45
48:1r:38:GLU:HA	48:1r:41:LYS:HE3	1.97	0.45
52:1v:217:VAL:HA	52:1v:220:ALA:HB3	1.99	0.45
1:2A:237:C:H2'	1:2A:238:C:C6	2.51	0.45
1:2A:445:C:OP1	15:2U:2:PRO:HA	2.15	0.45
1:2A:856:C:O2'	1:2A:857:C:OP1	2.34	0.45
1:2A:931:G:O2'	24:23:24:LYS:HD3	2.15	0.45
1:2A:1401:G:H2'	1:2A:1402:C:H6	1.81	0.45
1:2A:1880:C:H2'	1:2A:1881:C:C6	2.51	0.45
1:2A:2108:C:H2'	1:2A:2109:U:O4'	2.16	0.45
1:2A:2143:C:H2'	1:2A:2144:U:O4'	2.16	0.45
2:2B:28:C:H2'	2:2B:29:A:C8	2.51	0.45
5:2F:160:ASN:HB3	5:2F:163:VAL:HB	1.97	0.45
10:2P:49:ARG:O	29:28:61:LEU:HD11	2.15	0.45
13:2S:105:ALA:O	13:2S:110:LEU:HB2	2.17	0.45
31:2a:109:A:C6	31:2a:326:G:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:558:G:C8	31:2a:559:A:H2'	2.51	0.45
31:2a:583:A:N6	31:2a:758:G:O2'	2.46	0.45
38:2h:2:LEU:HD23	38:2h:3:THR:H	1.81	0.45
39:2i:46:ALA:HB2	39:2i:74:ILE:HG23	1.98	0.45
52:2v:226:ASN:O	52:2v:230:LYS:HG3	2.16	0.45
52:2v:517:LEU:HD13	52:2v:564:LYS:HB2	1.97	0.45
1:1A:26:G:C6	1:1A:27:G:N1	2.85	0.45
1:1A:151:C:H2'	1:1A:152:G:C8	2.51	0.45
1:1A:372:G:H8	22:11:65:SER:O	1.99	0.45
1:1A:517:C:OP2	26:15:13:LYS:HE3	2.16	0.45
1:1A:755:C:H2'	1:1A:756:C:H6	1.81	0.45
1:1A:828:U:C5	1:1A:2247:A:H4'	2.46	0.45
1:1A:881:G:H3'	1:1A:882:G:H8	1.81	0.45
1:1A:1000:A:C6	1:1A:1001:A:N1	2.84	0.45
1:1A:1171:G:N3	1:1A:1171:G:H2'	2.31	0.45
1:1A:1256:G:O2'	5:1F:75:HIS:HE1	2.00	0.45
1:1A:1504:C:H2'	1:1A:1505:C:C6	2.52	0.45
1:1A:1911:PSU:HN3	1:1A:1918:A:C2'	2.29	0.45
1:1A:2730:C:O2'	4:1E:168:MET:O	2.34	0.45
7:1H:149:ARG:HA	7:1H:162:ILE:HG21	1.98	0.45
17:1W:89:ALA:C	17:1W:91:GLY:N	2.75	0.45
31:1a:495:A:H4'	31:1a:496:A:OP1	2.16	0.45
31:1a:1007:C:N3	31:1a:1022:G:O6	2.49	0.45
31:1a:1151:A:O2'	31:1a:1152:A:H8	2.00	0.45
31:1a:1171:G:H2'	31:1a:1172:C:C6	2.51	0.45
31:1a:1437:C:H2'	31:1a:1438:G:C8	2.51	0.45
32:1b:18:GLY:HA3	32:1b:42:ILE:HG13	1.99	0.45
39:1i:20:ARG:O	39:1i:60:ASP:N	2.36	0.45
42:1l:83:VAL:HG21	42:1l:100:ILE:HD13	1.97	0.45
47:1q:17:LYS:HD2	47:1q:47:PRO:HA	1.98	0.45
52:1v:237:PRO:HB2	52:1v:242:LEU:HG	1.98	0.45
52:1v:420:ASP:CG	52:1v:423:LYS:HE3	2.41	0.45
53:1w:83:ILE:O	53:1w:85:ASP:N	2.48	0.45
53:1w:95:LYS:HD2	53:1w:95:LYS:HA	1.74	0.45
53:1w:150:SER:HB3	53:1w:153:GLU:CG	2.47	0.45
1:2A:380:U:H2'	1:2A:381:G:C8	2.51	0.45
1:2A:606:U:H4'	1:2A:658:C:O2'	2.17	0.45
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.62	0.45
13:2S:14:VAL:O	13:2S:18:ILE:HG12	2.16	0.45
31:2a:872:A:O2'	31:2a:873:A:H5"	2.17	0.45
31:2a:1436:U:H2'	31:2a:1437:C:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:2w:75:ALA:O	53:2w:79:ILE:N	2.49	0.45
53:2w:116:ARG:O	53:2w:120:GLN:N	2.46	0.45
1:1A:30:G:C6	1:1A:31:C:C4	3.04	0.45
1:1A:89:G:C6	1:1A:90:U:C4	3.05	0.45
1:1A:99:U:OP1	1:1A:100:G:O2'	2.23	0.45
1:1A:999:U:O2'	1:1A:1000:A:H5'	2.17	0.45
1:1A:1451:C:H1'	1:1A:1457:A:N6	2.31	0.45
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.51	0.45
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.16	0.45
2:1B:1:U:H3'	2:1B:2:C:C5	2.50	0.45
2:1B:71:C:C2	2:1B:72:G:C8	3.04	0.45
13:1S:11:LYS:HG3	13:1S:91:PRO:HD3	1.99	0.45
16:1V:19:LYS:HA	16:1V:94:LEU:O	2.16	0.45
17:1W:54:ALA:O	17:1W:57:ASN:N	2.48	0.45
20:1Z:21:ALA:O	20:1Z:23:LYS:HG2	2.17	0.45
29:18:8:LYS:O	29:18:12:LYS:HG3	2.16	0.45
31:1a:160:A:H2'	31:1a:161:A:O4'	2.17	0.45
31:1a:762:C:H2'	31:1a:763:G:H8	1.80	0.45
31:1a:840:C:H4'	31:1a:841:U:OP1	2.16	0.45
31:1a:1221:G:O3'	49:1s:77:THR:HB	2.16	0.45
31:1a:1486:G:H2'	31:1a:1487:G:O4'	2.16	0.45
35:1e:41:VAL:HG23	35:1e:67:VAL:HG12	1.97	0.45
38:1h:83:ILE:HA	38:1h:136:GLU:O	2.16	0.45
39:1i:17:VAL:HB	39:1i:63:ILE:HG23	1.97	0.45
43:1m:16:ASP:HA	43:1m:30:ALA:HB1	1.98	0.45
52:1v:524:GLU:HB3	52:1v:564:LYS:HG3	1.99	0.45
1:2A:598:G:H2'	1:2A:599:G:O4'	2.15	0.45
1:2A:956:G:H2'	1:2A:957:A:H2'	1.97	0.45
1:2A:2135:A:H5"	1:2A:2160:G:H1'	1.97	0.45
1:2A:2528:U:H2'	1:2A:2530:A:O5'	2.17	0.45
3:2D:85:ASP:HB2	3:2D:92:ILE:HD13	1.99	0.45
4:2E:12:THR:O	4:2E:23:VAL:HG22	2.17	0.45
19:2Y:9:LYS:HA	19:2Y:10:GLY:HA2	1.56	0.45
31:2a:38:G:N2	31:2a:397:A:OP1	2.46	0.45
31:2a:867:G:H2'	31:2a:868:C:C6	2.51	0.45
31:2a:1005:A:H5"	31:2a:1006:C:C5	2.52	0.45
31:2a:1460:A:H2'	31:2a:1461:G:O4'	2.15	0.45
39:2i:110:GLU:HG2	39:2i:111:ARG:H	1.82	0.45
1:1A:518:G:H2'	1:1A:519:U:C6	2.51	0.45
1:1A:581:C:H2'	1:1A:582:G:H8	1.80	0.45
1:1A:630:G:N2	1:1A:632:A:H3'	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:669:G:C2	1:1A:801:G:O6	2.69	0.45
1:1A:821:A:C2'	1:1A:946:G:H5"	2.47	0.45
1:1A:1270:C:H5"	1:1A:1271:G:O5'	2.15	0.45
1:1A:1309:G:O2'	1:1A:1611:C:O2'	2.31	0.45
1:1A:1636:C:H2'	1:1A:1637:A:H8	1.80	0.45
1:1A:2235:G:H2'	1:1A:2236:C:H6	1.78	0.45
1:1A:2351:G:O5'	1:1A:2351:G:H8	1.99	0.45
1:1A:2793:G:C6	1:1A:2794:C:N4	2.84	0.45
4:1E:117:MET:HE2	4:1E:117:MET:HB3	1.56	0.45
9:1O:122:LEU:HD13	14:1T:72:VAL:HG11	1.97	0.45
10:1P:50:ARG:CG	29:18:61:LEU:HD11	2.46	0.45
24:13:6:VAL:HG12	24:13:54:VAL:HG21	1.98	0.45
27:16:47:THR:HG22	27:16:48:VAL:N	2.32	0.45
31:1a:406:G:H2'	31:1a:407:G:C8	2.51	0.45
31:1a:690:G:C6	31:1a:691:G:C6	3.05	0.45
32:1b:21:ARG:C	32:1b:23:ARG:H	2.24	0.45
34:1d:13:ARG:HB2	34:1d:40:PRO:HD3	1.99	0.45
34:1d:88:VAL:HG13	35:1e:97:GLY:HA2	1.99	0.45
41:1k:81:ASP:OD1	41:1k:107:SER:OG	2.24	0.45
42:1l:83:VAL:HG23	42:1l:107:ALA:HB2	1.97	0.45
52:1v:473:ASP:OD1	52:1v:473:ASP:N	2.48	0.45
52:1v:620:VAL:O	52:1v:624:LEU:HB2	2.16	0.45
1:2A:104:U:H3'	1:2A:105:C:C6	2.51	0.45
1:2A:141:A:H2'	1:2A:1408:C:O2'	2.16	0.45
1:2A:142:A:N3	1:2A:1408:C:H1'	2.31	0.45
1:2A:736:C:H42	1:2A:760:G:H1	1.64	0.45
1:2A:1881:C:H2'	1:2A:1882:C:H6	1.81	0.45
3:2D:133:LEU:HB3	3:2D:173:VAL:HG21	1.98	0.45
5:2F:51:THR:HB	5:2F:88:VAL:HG11	1.98	0.45
5:2F:108:LYS:HE2	5:2F:108:LYS:HB2	1.61	0.45
10:2P:106:LEU:HD22	10:2P:112:LEU:HG	1.97	0.45
12:2R:39:PRO:O	12:2R:42:LYS:N	2.50	0.45
14:2T:60:THR:HG22	14:2T:77:PRO:HA	1.99	0.45
16:2V:69:LYS:HE3	16:2V:69:LYS:HB3	1.73	0.45
31:2a:405:U:H5"	31:2a:495:A:H2	1.81	0.45
31:2a:1226:C:N4	43:2m:104:ARG:HG2	2.31	0.45
41:2k:27:ASN:ND2	41:2k:55:LYS:HB3	2.32	0.45
42:2l:40:VAL:HA	42:2l:56:ALA:HA	1.98	0.45
46:2p:14:ASN:OD1	46:2p:42:ARG:NH2	2.49	0.45
52:2v:605:ILE:HG21	52:2v:675:HIS:CE1	2.51	0.45
1:1A:764:A:O4'	3:1D:213:ARG:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:960:A:C8	1:1A:962:G:C8	3.04	0.45
1:1A:1359:A:N6	1:1A:1372:U:H3	2.13	0.45
1:1A:1740:G:H2'	1:1A:1741:A:C8	2.51	0.45
1:1A:2453:A:N6	1:1A:2500:U:H3	2.11	0.45
5:1F:187:VAL:HG13	10:1P:1:MET:HB3	1.99	0.45
7:1H:3:ARG:HG3	7:1H:4:ILE:H	1.81	0.45
10:1P:19:VAL:HB	10:1P:31:ALA:HB1	1.99	0.45
25:14:49:PHE:HD1	25:14:49:PHE:HA	1.65	0.45
29:18:31:HIS:O	29:18:32:LEU:HB2	2.16	0.45
31:1a:20:U:H2'	31:1a:21:G:O4'	2.17	0.45
31:1a:815:A:O2'	31:1a:1526:G:N2	2.49	0.45
31:1a:1016:A:H2'	31:1a:1017:G:O4'	2.16	0.45
31:1a:1314:C:H2'	31:1a:1315:U:C6	2.52	0.45
32:1b:16:HIS:CG	32:1b:17:PHE:H	2.35	0.45
33:1c:78:GLY:HA3	33:1c:83:ARG:H	1.81	0.45
38:1h:92:ARG:NH1	38:1h:132:GLU:OE2	2.41	0.45
52:1v:71:THR:HG22	52:1v:80:ASN:OD1	2.16	0.45
52:1v:180:VAL:HG23	52:1v:216:LEU:HD22	1.99	0.45
1:2A:628:G:H2'	1:2A:629:G:H8	1.81	0.45
1:2A:1203:G:N1	1:2A:1241:A:OP2	2.47	0.45
1:2A:2331:G:H5'	21:20:44:ARG:HG3	1.99	0.45
1:2A:2636:U:H2'	1:2A:2637:U:H6	1.81	0.45
1:2A:2690:C:N4	1:2A:2713:A:H1'	2.30	0.45
1:2A:2820:A:O4'	12:2R:3:HIS:HB3	2.17	0.45
3:2D:232:PRO:HB2	3:2D:233:HIS:HD2	1.82	0.45
5:2F:158:THR:O	5:2F:164:ARG:NH1	2.45	0.45
20:2Z:102:LEU:HD23	20:2Z:139:VAL:HG21	1.98	0.45
21:20:45:PHE:HB3	21:20:59:LEU:HD11	1.98	0.45
29:28:56:GLU:O	29:28:60:LEU:HG	2.16	0.45
31:2a:1002:G:H1	31:2a:1038:C:H42	1.64	0.45
35:2e:87:SER:OG	35:2e:125:SER:OG	2.35	0.45
41:2k:48:ILE:O	41:2k:50:TYR:N	2.47	0.45
43:2m:3:ARG:NH1	43:2m:11:ARG:HH21	2.15	0.45
52:2v:146:LEU:HG	52:2v:260:LEU:HD12	1.98	0.45
52:2v:404:VAL:HG13	52:2v:406:GLU:HG3	1.98	0.45
52:2v:606:MET:HE3	52:2v:649:LEU:HD22	1.99	0.45
1:1A:578:A:OP1	1:1A:1255:U:O2'	2.23	0.45
1:1A:705:A:H2'	1:1A:706:A:C8	2.52	0.45
1:1A:922:U:O2'	21:10:29:GLN:NE2	2.50	0.45
1:1A:1021:A:H3'	1:1A:1021:A:N3	2.32	0.45
1:1A:1359:A:H2'	1:1A:1360:A:C5'	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1864:U:H2'	1:1A:1865:G:H8	1.81	0.45
8:1N:99:LEU:HD23	8:1N:99:LEU:HA	1.85	0.45
11:1Q:2:LEU:HB3	11:1Q:69:PHE:CE1	2.51	0.45
12:1R:96:ARG:O	12:1R:114:VAL:HA	2.17	0.45
31:1a:297:G:N2	31:1a:300:A:OP2	2.50	0.45
31:1a:714:G:H21	31:1a:777:A:H1'	1.82	0.45
31:1a:927:G:H1	31:1a:1390:U:H3	1.64	0.45
31:1a:998:G:N2	31:1a:1043:C:N3	2.57	0.45
31:1a:1498:UR3:O2'	55:1z:17:U:OP1	2.21	0.45
35:1e:27:ARG:HG2	35:1e:28:PHE:H	1.82	0.45
52:1v:536:LYS:H	52:1v:536:LYS:HD2	1.82	0.45
54:1y:19:G:C2	54:1y:56:C:N3	2.84	0.45
54:1y:67:C:H2'	54:1y:68:C:C6	2.52	0.45
1:2A:539:G:H1	1:2A:554:U:H3	1.65	0.45
1:2A:572:A:C2	1:2A:2033:A:C2	3.05	0.45
1:2A:673:C:O2'	1:2A:674:G:H5'	2.16	0.45
1:2A:1197:G:H2'	1:2A:1198:U:H6	1.82	0.45
1:2A:2313:C:H5"	6:2G:91:ARG:HD3	1.99	0.45
1:2A:2558:C:H2'	1:2A:2559:C:O4'	2.17	0.45
9:2O:98:VAL:HG22	9:2O:117:LEU:O	2.16	0.45
15:2U:17:ILE:HG23	15:2U:39:LEU:HD12	1.98	0.45
20:2Z:98:MET:HE2	20:2Z:98:MET:HB2	1.87	0.45
21:20:29:GLN:O	21:20:67:VAL:HG23	2.16	0.45
26:25:16:ARG:HG3	26:25:17:ASP:H	1.82	0.45
31:2a:598:U:H4'	38:2h:94:TYR:CG	2.51	0.45
31:2a:1113:C:H42	31:2a:1187:G:H1	1.64	0.45
40:2j:8:LEU:HG	40:2j:70:ARG:HB2	1.98	0.45
42:2l:73:GLU:H	42:2l:110:VAL:CG2	2.24	0.45
53:2w:30:THR:HG21	53:2w:179:LYS:NZ	2.32	0.45
1:1A:300:A:OP1	19:1Y:86:ARG:NH2	2.49	0.45
1:1A:329:G:O4'	1:1A:477:A:H1'	2.17	0.45
1:1A:588:U:O2	1:1A:670:A:H2	1.99	0.45
1:1A:686:G:H1	28:17:16:HIS:CD2	2.34	0.45
1:1A:695:G:C4	1:1A:696:G:C8	3.04	0.45
1:1A:795:C:H2'	1:1A:796:C:C6	2.52	0.45
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.52	0.45
1:1A:1857:G:C6	1:1A:1858:G:C6	3.04	0.45
1:1A:2056:G:N2	26:15:5:PRO:HA	2.31	0.45
1:1A:2093:G:C6	1:1A:2225:A:C8	3.04	0.45
2:1B:110:G:H2'	2:1B:111:G:C8	2.51	0.45
3:1D:205:VAL:O	3:1D:207:GLY:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:206:LEU:O	3:1D:208:LYS:N	2.48	0.45
6:1G:136:ARG:HA	6:1G:154:GLY:HA3	1.98	0.45
7:1H:28:GLY:HA3	7:1H:79:VAL:HB	1.98	0.45
9:1O:58:VAL:HG21	9:1O:86:ILE:HD13	1.98	0.45
11:1Q:60:ARG:NH2	20:1Z:180:VAL:HA	2.32	0.45
31:1a:656:C:H4'	45:1o:62:GLN:HE22	1.82	0.45
31:1a:1027:C:H5	31:1a:1028:C:C4	2.34	0.45
31:1a:1429:C:H2'	31:1a:1430:C:C6	2.51	0.45
38:1h:112:LEU:HA	38:1h:134:ILE:HG12	1.98	0.45
47:1q:92:ARG:NH1	47:1q:92:ARG:CG	2.73	0.45
1:2A:375:C:H2'	1:2A:376:C:H6	1.82	0.45
1:2A:764:A:H5'	3:2D:210:GLY:HA2	1.98	0.45
1:2A:972:G:H8	1:2A:972:G:O5'	2.00	0.45
1:2A:1355:G:H2'	1:2A:1356:G:H8	1.81	0.45
1:2A:1880:C:H2'	1:2A:1881:C:H6	1.82	0.45
1:2A:2875:C:H2'	1:2A:2876:G:O4'	2.17	0.45
4:2E:99:GLY:N	4:2E:172:VAL:O	2.35	0.45
4:2E:101:ARG:HD3	4:2E:170:LEU:O	2.17	0.45
9:2O:36:GLY:HA2	9:2O:106:LEU:HD23	1.98	0.45
12:2R:14:SER:OG	12:2R:15:SER:N	2.49	0.45
14:2T:119:LYS:HB2	31:2a:1442(A):G:H1	1.82	0.45
19:2Y:5:MET:HG2	19:2Y:30:VAL:HG11	1.98	0.45
20:2Z:186:GLU:HB3	20:2Z:189:ALA:HA	1.98	0.45
29:28:54:GLU:O	29:28:58:ILE:HG13	2.17	0.45
31:2a:430:A:OP1	34:2d:9:CYS:HB2	2.17	0.45
31:2a:434:U:H2'	31:2a:435:C:C6	2.51	0.45
31:2a:1065:U:O2'	31:2a:1066:C:OP2	2.26	0.45
31:2a:1414:U:H2'	31:2a:1415:G:C8	2.51	0.45
43:2m:15:VAL:O	43:2m:19:LEU:HD13	2.17	0.45
52:2v:75:LYS:O	52:2v:77:HIS:HD2	1.99	0.45
52:2v:444:PRO:HG3	52:2v:551:GLN:HB3	1.99	0.45
1:1A:195:A:N6	1:1A:198:C:OP2	2.43	0.45
1:1A:250:G:OP2	10:1P:60:MET:HE1	2.16	0.45
1:1A:779:U:H5"	3:1D:49:ILE:HD11	1.98	0.45
1:1A:1687:G:N2	1:1A:1700:A:OP1	2.41	0.45
1:1A:2008:C:H2'	1:1A:2009:G:H8	1.81	0.45
1:1A:2144:U:H3	1:1A:2147:G:H22	1.62	0.45
1:1A:2262:U:OP2	21:10:19:LYS:NZ	2.50	0.45
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.82	0.45
1:1A:2748:A:H5'	7:1H:4:ILE:HD12	1.98	0.45
2:1B:6:C:C2	2:1B:116:G:N2	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.81	0.45
9:1O:64:ARG:HD3	9:1O:79:PHE:CD1	2.52	0.45
18:1X:9:LEU:HD11	18:1X:31:HIS:HA	1.98	0.45
31:1a:538:G:H5"	42:1l:114:LYS:HB2	1.97	0.45
31:1a:584:G:OP1	47:1q:91:ARG:NH2	2.50	0.45
42:1l:25:PRO:HD2	42:1l:98:TYR:OH	2.17	0.45
47:1q:83:ASP:O	47:1q:87:LYS:HG2	2.17	0.45
49:1s:40:ILE:HB	49:1s:67:VAL:HA	1.97	0.45
52:1v:276:VAL:HG13	52:1v:280:LEU:HG	1.98	0.45
1:2A:9:U:H3	1:2A:2629:A:H2	1.65	0.45
1:2A:946:G:H2'	1:2A:947:G:C8	2.52	0.45
1:2A:2089:U:H2'	1:2A:2090:G:H8	1.82	0.45
1:2A:2291:U:O5'	1:2A:2291:U:H6	2.00	0.45
1:2A:2439:A:O4'	1:2A:2441:C:OP2	2.35	0.45
1:2A:2784:C:H2'	1:2A:2785:C:C6	2.52	0.45
1:2A:2820:A:C6	12:2R:4:LEU:HD11	2.52	0.45
4:2E:101:ARG:HD3	4:2E:101:ARG:HA	1.81	0.45
11:2Q:60:ARG:NH2	20:2Z:179:ASP:OD1	2.50	0.45
31:2a:66:G:C2	31:2a:104:G:H1'	2.51	0.45
31:2a:292:G:C5	31:2a:293:G:H1'	2.52	0.45
31:2a:784:C:H2'	31:2a:785:G:O4'	2.16	0.45
32:2b:162:ILE:HD11	32:2b:184:VAL:HG13	1.99	0.45
32:2b:178:ARG:HH22	38:2h:74:PRO:HB3	1.81	0.45
48:2r:36:ASN:O	48:2r:40:LEU:HG	2.17	0.45
49:2s:40:ILE:HB	49:2s:67:VAL:O	2.16	0.45
52:2v:293:THR:C	52:2v:295:GLU:H	2.25	0.45
1:1A:30:G:C5	1:1A:31:C:C4	3.05	0.45
1:1A:784:A:C8	3:1D:229:VAL:HG21	2.52	0.45
1:1A:1043:C:N3	1:1A:1044:G:C8	2.85	0.45
1:1A:1277:G:C6	1:1A:1294:U:N3	2.85	0.45
1:1A:1346:G:H2'	1:1A:1347:G:C8	2.47	0.45
1:1A:1388:G:H2'	1:1A:1389:G:H8	1.82	0.45
1:1A:2149:G:H5'	1:1A:2150:U:OP2	2.17	0.45
6:1G:40:ASN:O	6:1G:156:ASP:N	2.46	0.45
8:1N:138:LEU:HD23	8:1N:138:LEU:HA	1.73	0.45
11:1Q:57:HIS:HD2	11:1Q:117:ALA:HB2	1.81	0.45
15:1U:27:LEU:HB3	15:1U:31:SER:HB3	1.97	0.45
17:1W:18:ARG:NH2	17:1W:76:VAL:O	2.45	0.45
23:12:62:THR:O	23:12:66:GLU:HG3	2.17	0.45
31:1a:100:C:H2'	31:1a:101:A:C8	2.52	0.45
31:1a:189:G:C6	31:1a:189(L):G:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:664:G:P	48:1r:64:ARG:HH21	2.39	0.45
31:1a:1084:G:H5'	31:1a:1102:A:OP2	2.17	0.45
31:1a:1320:C:O4'	49:1s:73:GLU:HG2	2.17	0.45
32:1b:230:VAL:HG22	32:1b:232:PRO:HD2	1.99	0.45
33:1c:6:HIS:HD2	33:1c:8:ILE:H	1.65	0.45
37:1g:113:GLU:H	37:1g:113:GLU:HG2	1.52	0.45
38:1h:87:SER:HA	38:1h:93:VAL:HG23	1.99	0.45
42:1l:53:ARG:HB3	42:1l:69:TYR:HE1	1.82	0.45
43:1m:86:CYS:HB3	49:1s:73:GLU:HB3	1.98	0.45
45:1o:18:PHE:C	45:1o:20:GLY:H	2.24	0.45
1:2A:23:G:H1	1:2A:517:C:N4	2.15	0.45
1:2A:1424:G:H2'	1:2A:1425:G:O4'	2.17	0.45
1:2A:1999:C:H5"	1:2A:2723:C:O2'	2.17	0.45
1:2A:2166:G:H2'	1:2A:2167:U:C6	2.52	0.45
1:2A:2688:U:H2'	1:2A:2719:G:N2	2.32	0.45
2:2B:57:A:C2	6:2G:29:TRP:HB3	2.52	0.45
3:2D:26:LYS:NZ	3:2D:28:GLU:O	2.33	0.45
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.52	0.45
31:2a:300:A:C5	31:2a:301:G:H1'	2.52	0.45
31:2a:631:G:H2'	31:2a:632:A:H8	1.82	0.45
31:2a:1003:G:H1	31:2a:1027:C:H42	1.64	0.45
31:2a:1306:A:H1'	31:2a:1332:A:C2	2.52	0.45
31:2a:1354:C:H2'	31:2a:1355:G:H8	1.82	0.45
31:2a:1366:C:H2'	31:2a:1367:C:C6	2.52	0.45
43:2m:91:ARG:HB2	43:2m:98:VAL:HG22	1.98	0.45
47:2q:32:TYR:O	47:2q:34:LYS:N	2.48	0.45
52:2v:606:MET:CG	52:2v:649:LEU:HB2	2.47	0.45
1:1A:143(A):C:H4'	18:1X:38:GLU:OE2	2.17	0.45
1:1A:228:A:H3'	1:1A:229:A:C5'	2.44	0.45
1:1A:640:C:N3	1:1A:648:G:N2	2.65	0.45
1:1A:955:C:OP1	11:1Q:87:LYS:HE3	2.17	0.45
1:1A:2292:C:H4'	1:1A:2375:G:H4'	1.99	0.45
1:1A:2516:G:O2'	1:1A:2517:C:H5'	2.16	0.45
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.52	0.45
6:1G:131:TYR:O	6:1G:159:VAL:CG1	2.57	0.45
11:1Q:21:THR:HA	11:1Q:98:LYS:HB2	1.99	0.45
12:1R:26:LYS:HE2	12:1R:70:LEU:O	2.16	0.45
12:1R:52:ILE:C	12:1R:54:LEU:N	2.73	0.45
22:11:83:GLU:OE1	22:11:83:GLU:N	2.50	0.45
31:1a:411:A:N6	31:1a:413:G:H21	2.12	0.45
36:1f:37:VAL:HA	36:1f:65:VAL:HG12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1j:6:ILE:O	40:1j:71:LEU:HD12	2.17	0.45
1:2A:24:G:C6	1:2A:25:U:C4	3.05	0.45
1:2A:154(A):C:N4	1:2A:171:G:H1	2.15	0.45
1:2A:557:U:H2'	1:2A:558:G:C8	2.50	0.45
1:2A:809:G:H2'	1:2A:810:U:C6	2.51	0.45
1:2A:843:G:N2	1:2A:936:C:C2	2.85	0.45
1:2A:1354:A:O3'	3:2D:38:LYS:NZ	2.48	0.45
1:2A:1862:G:N2	1:2A:1880:C:O2	2.34	0.45
1:2A:1963:U:O4	53:2w:127:VAL:HG13	2.17	0.45
1:2A:2531:A:H2'	1:2A:2532:G:C8	2.52	0.45
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.52	0.45
1:2A:2717:G:H2'	1:2A:2718:G:O4'	2.16	0.45
1:2A:2718:G:O2'	1:2A:2847:U:OP1	2.28	0.45
4:2E:32:PRO:HD2	4:2E:50:GLY:O	2.17	0.45
9:2O:9:GLU:HB2	9:2O:83:ALA:HB2	1.98	0.45
9:2O:68:GLU:CD	9:2O:68:GLU:H	2.25	0.45
13:2S:35:ILE:HG23	13:2S:69:VAL:HG11	1.98	0.45
14:2T:29:ARG:HB3	14:2T:87:ASP:HB2	1.98	0.45
20:2Z:14:LYS:O	20:2Z:18:LEU:HD22	2.17	0.45
31:2a:108:G:C6	50:2t:15:ARG:HG2	2.52	0.45
35:2e:132:ALA:O	35:2e:136:MET:HG2	2.16	0.45
37:2g:66:VAL:HG12	37:2g:70:LYS:HE3	1.99	0.45
42:2l:72:GLY:HA2	42:2l:120:TYR:CE1	2.52	0.45
52:2v:608:VAL:HA	52:2v:671:MET:HA	1.99	0.45
1:1A:17:G:H4'	15:1U:25:TRP:NE1	2.31	0.44
1:1A:20:C:C2	1:1A:521:G:N2	2.85	0.44
1:1A:184:C:H1'	1:1A:217:G:H1'	1.98	0.44
1:1A:820:A:N3	1:1A:943:U:O2'	2.49	0.44
1:1A:980:A:N6	1:1A:981:A:N1	2.64	0.44
1:1A:1316:U:H2'	1:1A:1317:A:H8	1.82	0.44
1:1A:2059:A:C2	1:1A:2503:2MA:N6	2.85	0.44
1:1A:2336:A:H61	21:10:43:THR:CG2	2.29	0.44
1:1A:2652:C:H2'	1:1A:2653:U:O4'	2.16	0.44
1:1A:2663:G:C6	1:1A:2664:G:C4	3.04	0.44
3:1D:51:VAL:HG11	3:1D:54:ARG:NH1	2.32	0.44
5:1F:57:VAL:HG13	5:1F:59:TYR:H	1.81	0.44
6:1G:126:ASP:HB2	6:1G:130:ASN:HB2	1.98	0.44
8:1N:101:HIS:HD1	8:1N:101:HIS:C	2.23	0.44
26:15:29:THR:O	26:15:30:LEU:HD23	2.17	0.44
29:18:22:VAL:HG12	29:18:50:LEU:HD12	1.99	0.44
31:1a:153:C:N4	31:1a:168:G:H1	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:189(K):U:H2'	31:1a:189(L):G:C8	2.52	0.44
31:1a:689:C:H2'	31:1a:690:G:O4'	2.16	0.44
31:1a:1073:U:O2'	32:1b:104:ASN:OD1	2.36	0.44
31:1a:1268:A:H4'	51:1u:19:GLY:C	2.42	0.44
31:1a:1458:G:OP1	50:1t:35:THR:OG1	2.27	0.44
52:1v:-38:TYR:O	52:1v:-34:ARG:HG2	2.18	0.44
1:2A:16:G:H2'	1:2A:17:G:H8	1.82	0.44
1:2A:144:C:N4	1:2A:145:G:O6	2.51	0.44
1:2A:271(X):G:C2	1:2A:271(Y):U:O4	2.70	0.44
1:2A:276:A:H5"	1:2A:277:C:H5'	1.99	0.44
1:2A:324:A:H2'	1:2A:325:G:O4'	2.17	0.44
1:2A:527:C:O2	1:2A:2779:U:N3	2.50	0.44
1:2A:671:C:OP1	10:2P:43:GLY:N	2.40	0.44
1:2A:671:C:H2'	1:2A:672:C:C6	2.51	0.44
1:2A:675:A:C8	1:2A:804:A:C6	3.04	0.44
1:2A:851:U:H2'	1:2A:852:G:C8	2.51	0.44
1:2A:1344:G:H4'	1:2A:1384:A:N7	2.32	0.44
1:2A:1352:U:O2	1:2A:1380:G:N2	2.50	0.44
1:2A:1935:G:H3'	1:2A:1962:5MC:HN41	1.81	0.44
1:2A:2038:G:C6	1:2A:2039:C:C4	3.05	0.44
1:2A:2607:G:H2'	1:2A:2608:G:C8	2.52	0.44
5:2F:33:LEU:HD13	5:2F:112:MET:HE3	1.99	0.44
15:2U:18:LEU:HD21	15:2U:32:PHE:HA	1.99	0.44
19:2Y:35:TYR:CE2	19:2Y:69:ALA:HB3	2.51	0.44
31:2a:162:A:C5	31:2a:163:C:H1'	2.52	0.44
31:2a:1142:G:H2'	31:2a:1143:G:O4'	2.17	0.44
32:2b:124:SER:HB3	32:2b:125:PRO:HD3	1.99	0.44
35:2e:127:ASN:O	35:2e:131:ILE:HG12	2.16	0.44
50:2t:64:ASP:O	50:2t:68:LYS:HG3	2.17	0.44
52:2v:359:HIS:HB2	52:2v:362:HIS:O	2.16	0.44
1:1A:185:U:H2'	1:1A:186:G:O4'	2.16	0.44
1:1A:895:U:O2'	1:1A:896:A:OP1	2.33	0.44
1:1A:1609:A:HO2'	1:1A:1610:A:P	2.39	0.44
3:1D:76:PRO:HB2	3:1D:116:GLN:HE22	1.80	0.44
4:1E:27:LEU:HD12	4:1E:180:ASN:O	2.16	0.44
6:1G:55:LYS:O	6:1G:59:GLU:HB3	2.17	0.44
9:1O:4:PRO:O	9:1O:5:GLN:HB2	2.18	0.44
11:1Q:60:ARG:HH11	20:1Z:179:ASP:H	1.65	0.44
20:1Z:10:ARG:HB2	20:1Z:13:GLU:OE1	2.17	0.44
21:10:25:ARG:HD2	21:10:29:GLN:OE1	2.18	0.44
31:1a:45:U:H2'	31:1a:46:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:481:G:O2'	31:1a:483:C:N4	2.50	0.44
31:1a:646:U:H2'	31:1a:647:C:C6	2.52	0.44
31:1a:916:G:H2'	31:1a:917:G:H8	1.82	0.44
31:1a:1059:C:OP2	33:1c:199:LYS:NZ	2.32	0.44
31:1a:1100:C:N4	31:1a:1103:C:OP1	2.50	0.44
31:1a:1232:U:H5"	39:1i:124:GLN:O	2.17	0.44
32:1b:188:ALA:HB1	32:1b:192:SER:OG	2.16	0.44
36:1f:91:VAL:HG11	48:1r:72:ARG:NH1	2.33	0.44
1:2A:95:G:O5'	23:22:45:SER:OG	2.34	0.44
1:2A:729:G:O2'	1:2A:763:G:H4'	2.17	0.44
1:2A:892:G:H3'	1:2A:893:C:C5'	2.48	0.44
1:2A:1156:A:P	15:2U:55:ARG:HD3	2.57	0.44
1:2A:2330:G:C6	1:2A:2331:G:C4	3.05	0.44
1:2A:2432:A:C8	1:2A:2432:A:OP1	2.70	0.44
3:2D:68:LYS:HB3	3:2D:70:TRP:CE2	2.51	0.44
8:2N:39:ARG:NH2	8:2N:41:ASP:OD2	2.50	0.44
10:2P:70:GLN:OE1	10:2P:70:GLN:N	2.50	0.44
14:2T:92:GLY:O	14:2T:120:ARG:NH2	2.50	0.44
18:2X:11:PRO:HD3	23:22:37:PHE:CD2	2.52	0.44
19:2Y:48:ALA:HA	19:2Y:60:PHE:CD1	2.52	0.44
31:2a:1137:C:H5"	31:2a:1138:G:OP1	2.17	0.44
31:2a:1273:G:H2'	31:2a:1274:G:O4'	2.17	0.44
35:2e:5:ASP:CG	35:2e:6:PHE:H	2.25	0.44
35:2e:100:VAL:O	35:2e:107:ARG:NH1	2.33	0.44
35:2e:105:VAL:HB	35:2e:106:PRO:HD3	1.98	0.44
38:2h:20:TYR:CE2	38:2h:75:ARG:HD2	2.47	0.44
38:2h:42:GLU:HG2	38:2h:109:ILE:HD13	1.97	0.44
46:2p:53:VAL:HG22	46:2p:79:VAL:HG22	1.99	0.44
49:2s:41:VAL:HB	49:2s:44:MET:HG3	1.98	0.44
52:2v:499:ARG:HB2	52:2v:506:GLN:HE21	1.82	0.44
1:1A:533:G:H21	15:1U:45:TYR:HE2	1.63	0.44
1:1A:680:G:H1	1:1A:797:C:H42	1.65	0.44
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.53	0.44
1:1A:1649:G:O2'	12:1R:107:ASP:OD2	2.30	0.44
1:1A:1655:A:H4'	4:1E:115:GLY:N	2.32	0.44
1:1A:1900:A:N1	1:1A:1970:A:C6	2.85	0.44
1:1A:2637:U:C4	1:1A:2638:G:C6	3.05	0.44
12:1R:44:LEU:HD23	12:1R:44:LEU:HA	1.80	0.44
21:10:27:GLU:HG3	21:10:68:GLU:HA	1.99	0.44
31:1a:642:A:C5	31:1a:643:C:C4	3.06	0.44
31:1a:770:C:H2'	31:1a:771:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:1126:U:N3	31:1a:1280:A:OP1	2.49	0.44
31:1a:1437:C:H2'	31:1a:1438:G:H8	1.81	0.44
31:1a:1511:G:H2'	31:1a:1512:U:O4'	2.16	0.44
33:1c:18:TRP:CZ2	44:1n:57:ARG:HB3	2.53	0.44
35:1e:31:LEU:HD23	35:1e:31:LEU:HA	1.84	0.44
40:1j:31:GLY:HA3	40:1j:32:ALA:HA	1.74	0.44
49:1s:3:ARG:NE	49:1s:8:GLY:O	2.49	0.44
52:1v:213:HIS:O	52:1v:217:VAL:HG23	2.18	0.44
52:1v:602:LEU:HD13	52:1v:676:TYR:CD1	2.52	0.44
1:2A:436:C:H2'	1:2A:437:G:C8	2.53	0.44
1:2A:500:G:N2	1:2A:502:A:H3'	2.32	0.44
1:2A:768:G:C5	1:2A:769:G:N7	2.86	0.44
1:2A:1357:U:H2'	1:2A:1358:G:O4'	2.17	0.44
1:2A:1408:C:C2	1:2A:1595:G:N2	2.85	0.44
1:2A:1591:G:H2'	1:2A:1592:C:C6	2.53	0.44
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.53	0.44
1:2A:2412:A:H2'	1:2A:2413:G:O4'	2.18	0.44
1:2A:2887:U:H2'	1:2A:2888:C:C6	2.52	0.44
2:2B:90:A:C5	2:2B:91:C:H1'	2.52	0.44
8:2N:112:LEU:O	8:2N:116:LEU:HG	2.17	0.44
10:2P:52:GLU:OE1	10:2P:55:ARG:NH1	2.50	0.44
20:2Z:18:LEU:HD23	20:2Z:25:PRO:HG3	2.00	0.44
31:2a:59:A:H1'	31:2a:354:G:N2	2.32	0.44
31:2a:657:G:H4'	45:2o:28:GLN:HG3	1.99	0.44
31:2a:674:G:N2	31:2a:717:C:O2	2.45	0.44
31:2a:1054:C:H4'	31:2a:1055:A:H5"	1.99	0.44
31:2a:1086:U:H2'	31:2a:1087:G:H8	1.82	0.44
39:2i:105:ASP:HB2	39:2i:107:ARG:HE	1.82	0.44
40:2j:11:PHE:CE1	40:2j:67:THR:HG22	2.53	0.44
41:2k:110:ASP:OD1	41:2k:112:THR:OG1	2.34	0.44
47:2q:7:THR:O	47:2q:23:VAL:HG13	2.17	0.44
50:2t:36:LEU:HD13	50:2t:58:LYS:HG3	2.00	0.44
52:2v:512:ILE:H	52:2v:512:ILE:HD13	1.82	0.44
1:1A:32:C:O2'	1:1A:33:U:H5'	2.17	0.44
1:1A:192:C:O2	1:1A:802:A:O2'	2.36	0.44
1:1A:741:G:C6	1:1A:742:G:C5	3.06	0.44
1:1A:833:U:H2'	1:1A:834:C:H6	1.82	0.44
1:1A:1144:G:C6	1:1A:1145:C:C4	3.05	0.44
1:1A:1288:U:C2	1:1A:1327:C:O2	2.70	0.44
1:1A:1325:G:OP1	1:1A:1647:G:O2'	2.31	0.44
1:1A:2208:A:H5'	1:1A:2219:G:C4	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2447:G:O2'	1:1A:2500:U:OP2	2.29	0.44
1:1A:2781:A:H5"	1:1A:2782:G:H5'	1.99	0.44
6:1G:108:ASN:HB3	25:14:22:ILE:HD13	1.98	0.44
7:1H:122:THR:HB	7:1H:134:SER:OG	2.17	0.44
12:1R:22:ARG:C	12:1R:24:GLN:H	2.25	0.44
18:1X:9:LEU:CA	23:12:36:ARG:HH21	2.29	0.44
20:1Z:44:PHE:CD1	20:1Z:44:PHE:C	2.95	0.44
23:12:67:LYS:O	23:12:69:ARG:N	2.47	0.44
31:1a:109:A:H4'	31:1a:110:C:OP2	2.18	0.44
31:1a:977:A:HO2'	31:1a:981:U:H3	1.60	0.44
31:1a:1031:G:H2'	31:1a:1032:G:C8	2.52	0.44
31:1a:1093:A:N3	31:1a:1095:U:H5'	2.32	0.44
31:1a:1131:G:H2'	31:1a:1132:C:C6	2.53	0.44
31:1a:1414:U:H2'	31:1a:1415:G:H8	1.82	0.44
31:1a:1518:MA6:C6	31:1a:1519:MA6:H103	2.47	0.44
37:1g:46:ALA:HB1	37:1g:121:ALA:HB2	2.00	0.44
47:1q:67:LYS:C	47:1q:69:LYS:H	2.24	0.44
53:1w:25:LEU:HB3	53:1w:179:LYS:HE3	1.99	0.44
1:2A:564:C:H2'	1:2A:565:C:O4'	2.18	0.44
1:2A:1800:C:P	3:2D:183:ARG:HH12	2.40	0.44
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.52	0.44
1:2A:2466:C:C2	1:2A:2485:G:C2	3.05	0.44
2:2B:105:A:H5'	2:2B:106:G:OP2	2.17	0.44
3:2D:72:LYS:HD2	3:2D:103:ARG:NH1	2.33	0.44
3:2D:182:LEU:HG	3:2D:272:ALA:HB3	2.00	0.44
7:2H:54:ARG:HH11	7:2H:65:HIS:HD1	1.66	0.44
19:2Y:11:ASP:OD2	19:2Y:97:ARG:NH2	2.44	0.44
31:2a:203:U:H2'	31:2a:203:U:OP2	2.16	0.44
31:2a:690:G:H2'	31:2a:691:G:C8	2.52	0.44
31:2a:782:A:O3'	31:2a:1515:C:H4'	2.17	0.44
31:2a:975:A:C4	31:2a:1357:A:C2	3.04	0.44
31:2a:1415:G:H1	31:2a:1485:U:H3	1.64	0.44
33:2c:150:LYS:HG3	33:2c:169:ALA:HB2	2.00	0.44
34:2d:152:SER:O	34:2d:158:ILE:HD12	2.17	0.44
42:2l:56:ALA:HB2	42:2l:70:ILE:HD11	2.00	0.44
44:2n:4:LYS:HA	44:2n:7:ILE:HG12	2.00	0.44
52:2v:514:VAL:HG22	52:2v:565:VAL:HG22	1.99	0.44
1:1A:87:C:O2	1:1A:95:G:N2	2.44	0.44
1:1A:286:C:H2'	1:1A:287:C:H6	1.82	0.44
1:1A:445:C:HO2'	1:1A:449:A:HO2'	1.65	0.44
1:1A:590:A:P	5:1F:95:ARG:HH21	2.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:826:U:H3'	1:1A:828:U:O2	2.18	0.44
1:1A:1652:A:N7	1:1A:1653:G:C6	2.85	0.44
1:1A:2070:G:C2	1:1A:2071:A:C4	3.05	0.44
1:1A:2251:OMG:HM21	1:1A:2449:U:O2	2.18	0.44
1:1A:2293:C:H2'	1:1A:2294:C:H6	1.81	0.44
1:1A:2579:C:H4'	4:1E:134:ILE:HG12	1.98	0.44
1:1A:2751:G:C4	7:1H:2:SER:HA	2.52	0.44
2:1B:43:C:C4	2:1B:45:A:C6	3.05	0.44
2:1B:83:G:H5"	24:13:52:HIS:CD2	2.52	0.44
2:1B:108:U:H2'	2:1B:109:C:H5"	1.98	0.44
3:1D:10:THR:OG1	3:1D:13:ARG:HB2	2.18	0.44
4:1E:175:VAL:O	4:1E:177:PRO:HD3	2.17	0.44
5:1F:77:ASP:C	5:1F:79:GLY:H	2.24	0.44
6:1G:68:PRO:HB3	6:1G:92:VAL:HB	2.00	0.44
13:1S:61:ASN:ND2	13:1S:63:THR:HB	2.30	0.44
29:18:8:LYS:HD3	29:18:8:LYS:HA	1.78	0.44
31:1a:108:G:OP2	31:1a:326:G:N2	2.41	0.44
31:1a:261:U:OP2	50:1t:79:ARG:NH2	2.51	0.44
31:1a:371:G:H1'	31:1a:482:A:H1'	1.98	0.44
31:1a:1216:G:H5"	44:1n:5:ALA:HB2	1.99	0.44
38:1h:17:THR:O	38:1h:78:GLN:NE2	2.49	0.44
43:1m:86:CYS:CB	49:1s:73:GLU:HB3	2.47	0.44
53:1w:114:LEU:HB3	53:1w:183:ILE:HD13	1.98	0.44
1:2A:882:G:H2'	1:2A:883:G:C8	2.53	0.44
1:2A:1113:U:H2'	1:2A:1114:G:C8	2.53	0.44
1:2A:1436:G:H1	1:2A:1556:C:H42	1.64	0.44
1:2A:1951:U:O3'	9:2O:44:LYS:NZ	2.50	0.44
1:2A:2456:C:C4	1:2A:2457:U:C4	3.05	0.44
1:2A:2594:C:H2'	1:2A:2595:G:C8	2.52	0.44
11:2Q:109:VAL:HG13	11:2Q:113:GLN:HB2	1.98	0.44
20:2Z:54:HIS:O	20:2Z:98:MET:HE1	2.18	0.44
46:2p:19:ILE:HG22	46:2p:36:ILE:HG13	1.99	0.44
49:2s:40:ILE:HD13	49:2s:62:ILE:HD12	1.98	0.44
52:2v:101:LEU:HD23	52:2v:101:LEU:HA	1.83	0.44
1:1A:57:C:H2'	1:1A:58:G:O4'	2.17	0.44
1:1A:187:G:N3	1:1A:1365:A:H2	2.16	0.44
1:1A:514:A:H1'	1:1A:581:C:O2'	2.17	0.44
1:1A:648:G:H2'	1:1A:649:G:H8	1.83	0.44
1:1A:1213:A:H2'	1:1A:1214:A:O4'	2.17	0.44
1:1A:1344:G:C2	1:1A:1385:G:C8	3.06	0.44
1:1A:1666:G:OP1	9:1O:66:LYS:HD3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2027:G:H2'	1:1A:2028:U:O4'	2.17	0.44
1:1A:2436:G:C6	1:1A:2437:U:C4	3.06	0.44
3:1D:62:TYR:HA	3:1D:87:ASN:OD1	2.18	0.44
5:1F:106:ARG:H	5:1F:106:ARG:HG2	1.42	0.44
5:1F:159:GLY:HA2	5:1F:164:ARG:HH12	1.83	0.44
12:1R:21:TYR:HB3	12:1R:47:PHE:CD2	2.53	0.44
12:1R:100:LEU:HD11	12:1R:113:LEU:HD23	2.00	0.44
15:1U:76:TYR:CZ	15:1U:80:ILE:HG13	2.53	0.44
19:1Y:10:GLY:HA2	19:1Y:27:VAL:HB	2.00	0.44
20:1Z:102:LEU:HD13	20:1Z:123:ASP:HA	1.99	0.44
27:16:34:LEU:HB2	27:16:51:GLU:HB3	2.00	0.44
31:1a:892:A:H2'	31:1a:893:C:C6	2.52	0.44
32:1b:195:ASP:N	32:1b:195:ASP:OD1	2.49	0.44
37:1g:150:ALA:HA	41:1k:59:TYR:HB3	2.00	0.44
47:1q:92:ARG:HA	47:1q:95:TYR:CD2	2.53	0.44
52:1v:251:ILE:HD13	52:1v:285:ASP:HB3	1.99	0.44
54:1y:2:C:H42	54:1y:71:G:H1	1.64	0.44
1:2A:186:G:H2'	1:2A:187:G:C8	2.49	0.44
1:2A:436:C:H2'	1:2A:437:G:H8	1.82	0.44
1:2A:442:G:C4'	5:2F:46:ARG:HG3	2.47	0.44
1:2A:588:U:H1'	5:2F:90:PHE:HB3	1.98	0.44
1:2A:1269:A:H2'	1:2A:1270:C:H6	1.82	0.44
1:2A:1288:U:O4	12:2R:106:GLY:HA3	2.18	0.44
1:2A:1365:A:O5'	22:21:41:ARG:NH2	2.42	0.44
1:2A:1962:5MC:O3'	1:2A:1963:U:H3'	2.18	0.44
1:2A:2126:A:H4'	1:2A:2127:G:OP1	2.16	0.44
1:2A:2221:G:H2'	1:2A:2222:G:C8	2.52	0.44
3:2D:3:VAL:HG13	3:2D:17:THR:HB	2.00	0.44
11:2Q:60:ARG:HH22	20:2Z:181:GLU:HG2	1.82	0.44
13:2S:67:ARG:O	13:2S:71:ARG:HG3	2.18	0.44
27:26:21:TYR:CE2	27:26:38:LYS:HB3	2.53	0.44
28:27:24:THR:O	28:27:28:ARG:HG3	2.17	0.44
31:2a:15:G:H2'	31:2a:16:A:C8	2.52	0.44
31:2a:443:C:H2'	31:2a:444:C:C6	2.53	0.44
31:2a:810:C:H2'	31:2a:811:C:O4'	2.18	0.44
31:2a:963:G:O2'	31:2a:1199:U:H5"	2.17	0.44
31:2a:1101:A:N7	32:2b:175:ARG:NH2	2.62	0.44
33:2c:7:PRO:O	33:2c:11:ARG:NH1	2.44	0.44
37:2g:138:LYS:HZ2	37:2g:142:GLU:CD	2.18	0.44
38:2h:31:PHE:CE2	38:2h:35:ILE:HD11	2.53	0.44
38:2h:82:HIS:HB3	38:2h:138:TRP:CE2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2r:73:ALA:HB1	48:2r:78:LEU:HB2	2.00	0.44
53:2w:128:ALA:O	53:2w:131:ASN:HB3	2.17	0.44
1:1A:247:G:H4'	1:1A:386:G:C6	2.53	0.44
1:1A:301:G:H1'	1:1A:302:C:C6	2.53	0.44
1:1A:1600:C:OP1	18:1X:58:HIS:NE2	2.36	0.44
1:1A:2016:U:H1'	26:15:6:VAL:HG13	1.99	0.44
1:1A:2355:C:H1'	21:10:39:ARG:HH21	1.83	0.44
1:1A:2508:G:C4	1:1A:2509:G:C8	3.05	0.44
1:1A:2615:U:C2	26:15:7:PRO:HA	2.52	0.44
5:1F:37:VAL:HG22	5:1F:184:TYR:HA	2.00	0.44
12:1R:2:ARG:HG2	12:1R:5:LYS:HB2	1.98	0.44
21:10:40:GLN:OE1	21:10:45:PHE:N	2.48	0.44
31:1a:52:G:H2'	31:1a:53:A:C8	2.53	0.44
31:1a:482:A:H3'	31:1a:483:C:C6	2.52	0.44
31:1a:606:G:H5"	31:1a:607:A:H5'	1.99	0.44
31:1a:1491:G:H3'	31:1a:1492:A:C8	2.53	0.44
34:1d:4:TYR:O	34:1d:5:ILE:HG12	2.17	0.44
36:1f:75:LEU:O	36:1f:79:LEU:HG	2.17	0.44
46:1p:28:ARG:C	46:1p:30:GLY:H	2.25	0.44
52:1v:138:LYS:HE2	59:1v:704:GDP:N9	2.32	0.44
54:1x:35:A:H3'	54:1x:36:A:H8	1.83	0.44
1:2A:694:U:OP1	3:2D:59:LYS:NZ	2.50	0.44
1:2A:2089:U:H2'	1:2A:2090:G:C8	2.52	0.44
1:2A:2882:A:H5'	12:2R:96:ARG:HG3	1.99	0.44
5:2F:184:TYR:O	5:2F:188:ARG:HG3	2.17	0.44
7:2H:30:LYS:N	7:2H:79:VAL:O	2.49	0.44
11:2Q:76:LYS:HB3	11:2Q:91:GLU:HG3	1.99	0.44
31:2a:553:A:H2'	31:2a:554:C:C6	2.53	0.44
31:2a:639:G:H2'	31:2a:640:A:H8	1.83	0.44
31:2a:757:U:H2'	31:2a:758:G:O4'	2.17	0.44
31:2a:1014:A:N3	31:2a:1219:U:H1'	2.33	0.44
31:2a:1079:G:O3'	35:2e:14:ARG:NH2	2.50	0.44
52:2v:344:THR:HB	52:2v:398:ILE:HD11	2.00	0.44
54:2y:9:A:H8	54:2y:11:C:H41	1.64	0.44
1:1A:195:A:H5"	1:1A:196:A:O5'	2.17	0.44
1:1A:563:G:H2'	1:1A:564:C:C6	2.53	0.44
1:1A:1064:C:H2'	1:1A:1065:U:O4'	2.17	0.44
1:1A:2335:A:N7	1:1A:2337:G:C5	2.86	0.44
1:1A:2370:G:H2'	1:1A:2371:G:O4'	2.17	0.44
3:1D:249:PRO:HD2	3:1D:250:TRP:CZ3	2.52	0.44
10:1P:57:THR:O	10:1P:60:MET:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:11:80:LEU:HD23	22:11:82:LEU:HD21	2.00	0.44
31:1a:794:A:H2'	31:1a:795:C:C6	2.53	0.44
31:1a:1258:G:H2'	31:1a:1259:C:C6	2.53	0.44
31:1a:1372:U:H5"	39:1i:71:SER:HB3	2.00	0.44
35:1e:20:GLN:O	35:1e:22:GLY:N	2.50	0.44
41:1k:48:ILE:O	41:1k:50:TYR:N	2.47	0.44
41:1k:87:THR:HG22	41:1k:91:ARG:NH1	2.33	0.44
43:1m:3:ARG:NH2	43:1m:9:ILE:O	2.43	0.44
43:1m:19:LEU:HB3	43:1m:25:ILE:HG21	1.99	0.44
52:1v:-55:LEU:HD23	52:1v:-55:LEU:HA	1.87	0.44
53:1w:124:GLU:O	53:1w:127:VAL:HG22	2.17	0.44
1:2A:652(D):C:O5'	1:2A:652(D):C:C6	2.70	0.44
1:2A:807:U:C4	1:2A:808:G:N7	2.85	0.44
1:2A:863:A:OP1	11:2Q:22:LYS:HB3	2.17	0.44
1:2A:1652:A:H62	12:2R:11:ASN:HD21	1.66	0.44
1:2A:2378:A:C2	13:2S:18:ILE:HD13	2.53	0.44
14:2T:65:LYS:HE2	14:2T:65:LYS:HB3	1.79	0.44
15:2U:66:ASN:HD21	15:2U:70:ARG:NH2	2.15	0.44
21:20:33:ALA:N	21:20:64:ASP:OD1	2.51	0.44
27:26:25:LYS:HE3	27:26:27:LYS:HA	2.00	0.44
31:2a:1132:C:H42	31:2a:1142:G:H1	1.66	0.44
52:2v:340:TYR:CZ	52:2v:351:ARG:HD3	2.53	0.44
52:2v:555:LEU:HD22	52:2v:688:ILE:HD13	1.99	0.44
54:2y:6:G:C6	54:2y:7:A:C6	3.06	0.44
1:1A:466:A:N3	1:1A:683:C:H1'	2.32	0.44
1:1A:794:G:C6	1:1A:795:C:C4	3.05	0.44
1:1A:857:C:H1'	21:10:26:TYR:HE1	1.83	0.44
1:1A:860:U:H2'	1:1A:861:A:H8	1.83	0.44
1:1A:918:A:C6	1:1A:919:G:H1'	2.53	0.44
1:1A:1057:A:H61	1:1A:1081:U:H3	1.64	0.44
1:1A:1068:G:H2'	1:1A:1096:A:H1'	2.00	0.44
1:1A:1283:G:H1'	1:1A:1329:U:H3	1.82	0.44
1:1A:2636:U:O2'	4:1E:44:TYR:OH	2.29	0.44
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.52	0.44
1:1A:2848:G:H8	14:1T:97:ALA:HB2	1.83	0.44
1:1A:2864:G:H2'	1:1A:2865:U:C6	2.52	0.44
4:1E:78:LEU:HD12	4:1E:78:LEU:HA	1.65	0.44
5:1F:78:ILE:HA	5:1F:83:PHE:CE2	2.53	0.44
5:1F:164:ARG:O	5:1F:168:ARG:HB2	2.18	0.44
5:1F:167:ALA:O	5:1F:170:LEU:HB2	2.17	0.44
7:1H:58:GLU:OE2	7:1H:61:HIS:ND1	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1S:24:LEU:HD23	13:1S:24:LEU:HA	1.86	0.44
24:13:5:LYS:HD3	24:13:59:VAL:HG11	2.00	0.44
31:1a:538:G:H2'	31:1a:539:A:C8	2.53	0.44
31:1a:580:U:H2'	31:1a:581:G:O4'	2.17	0.44
31:1a:1458:G:H5'	50:1t:32:ALA:HB2	2.00	0.44
35:1e:82:VAL:HG11	35:1e:137:GLU:HB3	2.00	0.44
40:1j:8:LEU:HD22	40:1j:96:ILE:HG22	2.00	0.44
47:1q:56:VAL:O	47:1q:77:VAL:HB	2.18	0.44
52:1v:-11:LYS:O	52:1v:-7:GLU:HG2	2.17	0.44
52:1v:523:PHE:CE2	52:1v:525:PHE:HB2	2.53	0.44
52:1v:605:ILE:HD13	52:1v:675:HIS:CE1	2.53	0.44
1:2A:199:A:C6	1:2A:2434:A:C6	3.06	0.44
1:2A:520:G:H2'	1:2A:521:G:H8	1.82	0.44
1:2A:615:G:O2'	5:2F:205:ARG:NH1	2.50	0.44
1:2A:776:G:C4	1:2A:793:A:C2	3.05	0.44
1:2A:831:G:H5"	10:2P:37:GLY:HA2	2.00	0.44
1:2A:863:A:H2'	1:2A:864:G:C8	2.52	0.44
1:2A:1338:G:C2	1:2A:1339:G:C4	3.06	0.44
1:2A:1388:G:H2'	1:2A:1389:G:H8	1.83	0.44
1:2A:1653:G:O6	12:2R:9:LYS:HB2	2.18	0.44
1:2A:1655:A:H2	1:2A:2049:G:O3'	2.01	0.44
1:2A:2563:U:H2'	1:2A:2565:A:OP2	2.18	0.44
1:2A:2577:A:H5"	1:2A:2578:G:H5'	1.99	0.44
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.53	0.44
1:2A:2677:G:H2'	1:2A:2678:C:C6	2.52	0.44
1:2A:2830:G:H5"	4:2E:58:ARG:CZ	2.48	0.44
6:2G:170:ARG:NH2	6:2G:182:LYS:O	2.51	0.44
31:2a:392:G:H2'	31:2a:393:A:C8	2.53	0.44
31:2a:743:U:H2'	31:2a:744:C:C6	2.53	0.44
31:2a:1438:G:H2'	31:2a:1439:C:C6	2.52	0.44
32:2b:69:LEU:HB3	32:2b:162:ILE:HG22	1.99	0.44
35:2e:72:GLN:O	35:2e:75:THR:HG22	2.18	0.44
39:2i:40:LEU:HD13	39:2i:74:ILE:HD11	2.00	0.44
42:2l:113:ARG:NH2	42:2l:116:SER:OG	2.51	0.44
49:2s:80:TYR:HE1	49:2s:83:HIS:ND1	2.16	0.44
52:2v:-38:TYR:O	52:2v:-34:ARG:HG2	2.18	0.44
52:2v:359:HIS:CE1	52:2v:364:GLU:HB2	2.52	0.44
1:1A:125:G:H4'	1:1A:126:A:OP2	2.16	0.43
1:1A:375:C:N3	1:1A:399:G:N2	2.55	0.43
1:1A:1047:G:O2'	1:1A:1048:A:C8	2.71	0.43
1:1A:1565:C:H42	1:1A:1568:G:H1	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2549:G:O2'	1:1A:2550:G:H5'	2.17	0.43
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.53	0.43
2:1B:105:A:OP1	20:1Z:72:ARG:NH1	2.51	0.43
5:1F:141:ALA:O	5:1F:144:LYS:HB3	2.18	0.43
8:1N:60:ILE:HD12	8:1N:60:ILE:HA	1.80	0.43
18:1X:94:GLY:H	18:1X:95:LEU:C	2.25	0.43
20:1Z:23:LYS:O	20:1Z:25:PRO:HD3	2.17	0.43
31:1a:448:A:P	31:1a:485:G:H22	2.41	0.43
31:1a:620:C:C2	34:1d:135:LEU:HG	2.53	0.43
31:1a:926:G:N2	55:1z:15:A:H5"	2.33	0.43
31:1a:966:M2G:H2'	31:1a:967:5MC:O4'	2.18	0.43
31:1a:1133:G:H1	31:1a:1141:C:N4	2.16	0.43
46:1p:8:ARG:HB2	46:1p:17:TYR:CE1	2.53	0.43
52:1v:68:ALA:HB3	52:1v:327:PHE:CE1	2.53	0.43
1:2A:236:C:H2'	1:2A:237:C:C6	2.53	0.43
1:2A:463:G:N2	1:2A:466:A:OP2	2.36	0.43
1:2A:1591:G:H2'	1:2A:1592:C:H6	1.83	0.43
1:2A:1687:G:H2'	1:2A:1688:U:H6	1.83	0.43
1:2A:2291:U:C5	1:2A:2291:U:OP2	2.70	0.43
1:2A:2294:C:H2'	1:2A:2295:C:H6	1.83	0.43
3:2D:187:GLY:C	3:2D:189:CYS:H	2.25	0.43
4:2E:108:SER:OG	4:2E:162:ALA:N	2.51	0.43
10:2P:70:GLN:O	10:2P:73:GLY:N	2.48	0.43
24:23:8:LEU:HD13	24:23:28:LEU:HD13	2.00	0.43
25:24:40:HIS:O	25:24:44:THR:HG22	2.17	0.43
31:2a:185:A:N3	50:2t:81:LYS:NZ	2.66	0.43
31:2a:504:C:H2'	31:2a:511:C:H5	1.83	0.43
31:2a:1125:U:C4	40:2j:38:ILE:HD13	2.52	0.43
31:2a:1226:C:H4'	49:2s:80:TYR:CE1	2.53	0.43
31:2a:1338:G:H2'	31:2a:1339:A:C8	2.53	0.43
31:2a:1413:A:H2'	31:2a:1414:U:C6	2.53	0.43
33:2c:117:ALA:HB1	33:2c:187:ALA:HB2	2.00	0.43
38:2h:14:ARG:HH21	38:2h:84:ARG:HA	1.83	0.43
40:2j:50:ILE:HD12	44:2n:41:ARG:NH1	2.33	0.43
40:2j:64:GLU:OE2	40:2j:66:ARG:NH1	2.43	0.43
47:2q:22:LEU:HD11	47:2q:39:SER:HB2	2.00	0.43
50:2t:51:GLU:HG3	50:2t:54:LYS:HE2	1.99	0.43
52:2v:13:ARG:HH12	52:2v:247:ARG:NH2	2.15	0.43
52:2v:674:ASP:HB3	52:2v:675:HIS:HD2	1.83	0.43
1:1A:501:A:H2'	1:1A:502:A:H8	1.83	0.43
1:1A:565:C:H5"	16:1V:80:GLN:HE22	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:768:G:C6	1:1A:769:G:C5	3.06	0.43
1:1A:1164:G:C2	1:1A:1165:U:C2	3.06	0.43
1:1A:1509(A):A:H3'	1:1A:1509(B):A:H8	1.83	0.43
1:1A:2842:G:H2'	1:1A:2843:G:C8	2.53	0.43
3:1D:50:THR:O	3:1D:50:THR:OG1	2.36	0.43
3:1D:218:ARG:HB3	3:1D:219:PRO:HD2	2.00	0.43
5:1F:24:LEU:HD23	5:1F:115:ALA:HA	2.00	0.43
5:1F:54:ARG:N	5:1F:87:GLY:HA3	2.33	0.43
6:1G:56:ALA:HA	6:1G:59:GLU:CD	2.42	0.43
6:1G:161:THR:HG21	6:1G:163:ALA:CB	2.48	0.43
14:1T:101:PHE:CE1	14:1T:102:ILE:HG22	2.52	0.43
20:1Z:138:GLU:H	20:1Z:156:LYS:NZ	2.16	0.43
31:1a:376:G:H5"	46:1p:5:ARG:HB3	2.00	0.43
31:1a:617:G:N2	31:1a:624:C:H1'	2.34	0.43
31:1a:857:C:H2'	31:1a:858:G:O4'	2.18	0.43
31:1a:971:G:C8	31:1a:1365:G:H4'	2.53	0.43
31:1a:972:C:O2'	40:1j:55:LYS:O	2.36	0.43
31:1a:1020:U:O2	31:1a:1020:U:C2'	2.66	0.43
31:1a:1082:G:H2'	31:1a:1083:U:O4'	2.18	0.43
31:1a:1227:A:H2'	43:1m:117:VAL:HG21	2.00	0.43
32:1b:19:HIS:CE1	32:1b:20:GLU:HG2	2.53	0.43
32:1b:184:VAL:HG12	32:1b:197:VAL:HG13	2.00	0.43
50:1t:59:ALA:O	50:1t:63:ILE:HG13	2.18	0.43
50:1t:99:LEU:HA	50:1t:100:ILE:HA	1.77	0.43
52:1v:-63:ILE:N	52:1v:-30:VAL:O	2.50	0.43
52:1v:483:TYR:C	52:1v:484:ARG:HE	2.26	0.43
1:2A:510:C:H2'	1:2A:511:U:O4'	2.18	0.43
1:2A:616:G:OP2	5:2F:106:ARG:NE	2.43	0.43
1:2A:729:G:N7	3:2D:209:ALA:HB3	2.33	0.43
1:2A:1657:C:OP1	4:2E:136:ARG:N	2.50	0.43
1:2A:1839:G:C8	1:2A:1927:A:H1'	2.52	0.43
1:2A:2303:G:O2'	6:2G:132:ASN:HB2	2.19	0.43
3:2D:173:VAL:HG23	3:2D:175:LEU:HD21	2.00	0.43
15:2U:16:LYS:O	15:2U:20:LEU:HD12	2.19	0.43
15:2U:27:LEU:HD23	15:2U:27:LEU:HA	1.74	0.43
24:23:8:LEU:HA	24:23:54:VAL:HG23	1.99	0.43
30:29:14:CYS:HB3	30:29:27:CYS:HB2	1.99	0.43
31:2a:38:G:C2	31:2a:397:A:C2	3.07	0.43
31:2a:509:A:N3	31:2a:543:C:O2'	2.50	0.43
31:2a:518:C:H2'	31:2a:530:G:C2	2.53	0.43
31:2a:1299:A:H2'	31:2a:1299:A:N3	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:1510:U:H2'	31:2a:1511:G:C8	2.52	0.43
32:2b:24:TRP:CZ3	32:2b:29:ALA:HB2	2.54	0.43
38:2h:26:VAL:HG22	38:2h:59:LEU:HB2	2.01	0.43
52:2v:-40:ARG:HE	52:2v:-40:ARG:HB2	1.58	0.43
52:2v:183:MET:HG2	52:2v:213:HIS:CD2	2.53	0.43
52:2v:400:GLU:O	52:2v:402:ILE:HG13	2.18	0.43
52:2v:412:ALA:HA	52:2v:450:ILE:HA	1.99	0.43
1:1A:56:A:C6	1:1A:57:C:C4	3.06	0.43
1:1A:514:A:H2'	1:1A:515:A:H8	1.83	0.43
1:1A:1094:U:N3	1:1A:1097:U:OP2	2.52	0.43
1:1A:1266:G:O6	17:1W:13:SER:OG	2.31	0.43
1:1A:1364:G:C6	1:1A:1368:G:C6	3.07	0.43
1:1A:1571:A:H8	1:1A:1571:A:O5'	2.01	0.43
1:1A:2244:U:H2'	1:1A:2245:U:O4'	2.18	0.43
1:1A:2336:A:H61	21:10:43:THR:HG22	1.83	0.43
1:1A:2663:G:C6	1:1A:2664:G:C5	3.06	0.43
3:1D:73:VAL:O	3:1D:75:ILE:HG13	2.18	0.43
12:1R:63:ARG:HA	12:1R:80:PHE:CZ	2.53	0.43
12:1R:70:LEU:O	12:1R:71:GLN:HB2	2.18	0.43
13:1S:11:LYS:HB2	13:1S:91:PRO:HB3	2.00	0.43
20:1Z:39:VAL:HG21	20:1Z:44:PHE:HD2	1.83	0.43
23:12:47:ASN:O	23:12:50:ILE:HG13	2.18	0.43
25:14:58:ARG:O	49:1s:67:VAL:HB	2.18	0.43
31:1a:279:A:N7	47:1q:98:LEU:HD23	2.33	0.43
31:1a:401:C:H2'	31:1a:402:G:C8	2.53	0.43
31:1a:418:C:H2'	31:1a:419:C:C6	2.53	0.43
31:1a:874:G:H2'	31:1a:875:C:C6	2.53	0.43
31:1a:1219:U:OP1	44:1n:19:ARG:NH1	2.40	0.43
31:1a:1330:U:H4'	43:1m:23:TYR:CE2	2.54	0.43
33:1c:97:LYS:O	33:1c:99:VAL:N	2.51	0.43
34:1d:121:VAL:O	34:1d:134:ASP:HA	2.18	0.43
36:1f:2:ARG:HB2	36:1f:4:TYR:CZ	2.54	0.43
36:1f:49:ALA:HB1	48:1r:80:PRO:HB3	1.99	0.43
38:1h:83:ILE:HB	38:1h:137:VAL:HG13	1.99	0.43
49:1s:10:PHE:HE2	49:1s:37:ARG:HG3	1.84	0.43
52:1v:-36:LEU:HA	52:1v:-31:ALA:O	2.18	0.43
52:1v:74:TRP:CD2	52:1v:273:LEU:HD13	2.53	0.43
52:1v:537:GLU:O	52:1v:540:PRO:HD2	2.17	0.43
52:1v:550:MET:SD	52:1v:563:ILE:HD11	2.59	0.43
53:1w:143:LEU:HD12	53:1w:143:LEU:HA	1.75	0.43
1:2A:198:C:H5'	1:2A:2244:U:OP1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:246:C:C4	1:2A:247:G:N7	2.87	0.43
1:2A:932:G:H4'	1:2A:933:A:O5'	2.18	0.43
1:2A:957:A:H4'	11:2Q:74:TYR:OH	2.18	0.43
1:2A:1655:A:H3'	1:2A:1656:C:H6	1.83	0.43
1:2A:1797:C:N4	1:2A:1798:U:O4	2.51	0.43
16:2V:34:GLU:HG2	16:2V:58:VAL:HG22	2.00	0.43
18:2X:20:GLY:O	18:2X:25:LYS:N	2.41	0.43
22:21:46:LEU:HD23	22:21:46:LEU:HA	1.70	0.43
29:28:26:LYS:HB3	29:28:44:LYS:O	2.19	0.43
31:2a:336:C:H2'	31:2a:337:C:H6	1.83	0.43
31:2a:639:G:H2'	31:2a:640:A:C8	2.54	0.43
31:2a:936:C:H2'	31:2a:937:A:O4'	2.18	0.43
31:2a:1186:G:H2'	31:2a:1187:G:O4'	2.18	0.43
34:2d:57:ARG:HD3	34:2d:205:GLU:HB3	2.00	0.43
36:2f:36:ARG:HH12	36:2f:38:GLU:HG2	1.83	0.43
40:2j:30:SER:O	40:2j:81:THR:OG1	2.31	0.43
52:2v:470:PHE:O	52:2v:472:VAL:N	2.51	0.43
52:2v:683:VAL:HB	52:2v:687:LEU:HD11	2.00	0.43
1:1A:674:G:H1'	5:1F:74:ARG:HD3	2.01	0.43
1:1A:774:A:O3'	1:1A:777:A:H1'	2.18	0.43
1:1A:785:G:H2'	1:1A:786:C:H6	1.84	0.43
1:1A:1005:C:H1'	1:1A:1012:U:C4	2.53	0.43
1:1A:1301:A:C8	1:1A:1303:G:C8	3.06	0.43
1:1A:1930:G:N2	1:1A:1968:G:H2'	2.33	0.43
1:1A:2075:U:C4	1:1A:2238:G:C6	3.05	0.43
3:1D:12:SER:CB	3:1D:208:LYS:HB3	2.47	0.43
4:1E:54:GLN:O	4:1E:56:PRO:HD3	2.18	0.43
7:1H:20:ALA:HB1	7:1H:23:ARG:HH21	1.83	0.43
11:1Q:78:PRO:O	11:1Q:81:VAL:HG13	2.18	0.43
20:1Z:72:ARG:HD3	20:1Z:72:ARG:HA	1.78	0.43
23:12:53:LEU:HD23	23:12:53:LEU:HA	1.79	0.43
25:14:33:VAL:HG12	25:14:34:GLU:H	1.82	0.43
31:1a:34:C:H2'	31:1a:35:G:C8	2.54	0.43
31:1a:408:A:H2'	31:1a:409:G:C8	2.53	0.43
32:1b:32:ILE:HG23	32:1b:41:ILE:O	2.19	0.43
32:1b:55:PHE:HE1	32:1b:218:ALA:HA	1.83	0.43
33:1c:56:ASP:O	33:1c:66:VAL:HA	2.19	0.43
38:1h:112:LEU:HB3	38:1h:133:LEU:HA	2.00	0.43
39:1i:9:ARG:HD2	39:1i:104:ARG:NH1	2.33	0.43
52:1v:-9:LEU:O	52:1v:-5:LYS:HG2	2.18	0.43
52:1v:122:TRP:NE1	52:1v:132:ARG:NH2	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:1x:19:G:H5'	54:1x:60:U:O4	2.18	0.43
1:2A:556:G:H2'	1:2A:557:U:C6	2.54	0.43
1:2A:579:G:C2	1:2A:580:C:C2	3.07	0.43
1:2A:1022:G:N7	8:2N:66:LYS:HD3	2.33	0.43
1:2A:1364:G:OP2	22:21:3:LYS:HG3	2.17	0.43
1:2A:2142:C:H2'	1:2A:2143:C:O4'	2.19	0.43
1:2A:2187:G:C6	1:2A:2188:C:C4	3.06	0.43
1:2A:2682:U:C2	4:2E:22:PRO:HB3	2.54	0.43
9:2O:93:PRO:HG3	9:2O:114:ILE:HG12	1.99	0.43
16:2V:66:ARG:NE	16:2V:88:ARG:HD3	2.33	0.43
18:2X:1:MET:HE1	23:22:22:GLU:O	2.18	0.43
31:2a:38:G:H22	31:2a:397:A:P	2.40	0.43
31:2a:296:U:O2'	31:2a:556:C:O2	2.31	0.43
31:2a:580:U:H2'	31:2a:581:G:C8	2.53	0.43
31:2a:1014:A:H4'	49:2s:14:HIS:CE1	2.54	0.43
31:2a:1152:A:OP1	40:2j:13:HIS:HB2	2.17	0.43
31:2a:1241:G:H1	31:2a:1296:C:H42	1.65	0.43
39:2i:108:VAL:HG12	39:2i:109:VAL:H	1.83	0.43
49:2s:75:ALA:O	49:2s:77:THR:N	2.51	0.43
53:2w:25:LEU:HB3	53:2w:179:LYS:HE3	2.00	0.43
1:1A:2033:A:O2'	1:1A:2035:G:OP2	2.35	0.43
1:1A:2519:U:C6	1:1A:2542:A:N6	2.87	0.43
1:1A:2729:G:O2'	4:1E:186:GLY:HA3	2.18	0.43
5:1F:53:THR:C	5:1F:55:GLY:N	2.74	0.43
9:1O:24:VAL:O	9:1O:26:LYS:N	2.48	0.43
14:1T:127:ALA:C	14:1T:129:ARG:H	2.27	0.43
17:1W:101:SER:O	17:1W:102:HIS:ND1	2.48	0.43
25:14:55:ARG:H	25:14:56:VAL:HA	1.83	0.43
25:14:61:ARG:HG3	25:14:62:ARG:N	2.33	0.43
31:1a:825:G:H21	38:1h:11:THR:HG21	1.82	0.43
31:1a:828:A:H2'	31:1a:829:G:O4'	2.18	0.43
31:1a:1073:U:H2'	31:1a:1074:G:C8	2.51	0.43
31:1a:1486:G:C6	31:1a:1487:G:C6	3.05	0.43
33:1c:9:GLY:HA2	33:1c:12:LEU:HG	2.01	0.43
41:1k:54:ARG:NH1	54:1y:39:PSU:O3'	2.51	0.43
52:1v:118:SER:HA	52:1v:121:VAL:HG22	1.99	0.43
53:1w:108:GLU:OE1	53:1w:111:ARG:HD2	2.18	0.43
1:2A:464:U:C2	1:2A:788:A:C6	3.06	0.43
1:2A:573:G:O2'	1:2A:574:C:H5'	2.18	0.43
1:2A:834:C:H2'	1:2A:835:A:H8	1.83	0.43
1:2A:906:G:H2'	1:2A:907:U:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1548:C:H2'	1:2A:1549:C:C6	2.53	0.43
2:2B:64:C:H2'	2:2B:65:C:C6	2.53	0.43
3:2D:17:THR:HG1	3:2D:205:VAL:H	1.64	0.43
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.99	0.43
22:21:46:LEU:HD13	22:21:61:ARG:HD2	2.00	0.43
31:2a:1309:G:H5'	43:2m:78:ILE:HG12	1.99	0.43
33:2c:100:ALA:O	33:2c:102:ASN:ND2	2.52	0.43
46:2p:4:ILE:HG23	46:2p:36:ILE:HD11	2.00	0.43
46:2p:6:LEU:HD11	46:2p:19:ILE:HG12	2.01	0.43
52:2v:147:TRP:O	52:2v:151:ARG:HB2	2.18	0.43
52:2v:355:LEU:HD12	52:2v:355:LEU:HA	1.86	0.43
53:2w:58:VAL:HG22	53:2w:68:VAL:HG22	2.01	0.43
1:1A:24:G:O2'	17:1W:77:ASP:HB3	2.19	0.43
1:1A:687:C:H2'	1:1A:688:U:O4'	2.18	0.43
1:1A:776:G:O6	1:1A:793:A:H2'	2.18	0.43
1:1A:799:G:N1	1:1A:800:A:N6	2.66	0.43
1:1A:836:G:C5	1:1A:837:C:C4	3.07	0.43
1:1A:996:A:H2'	1:1A:997:G:H8	1.81	0.43
1:1A:1333:C:H2'	1:1A:1334:G:H8	1.83	0.43
1:1A:1795:C:H2'	1:1A:1796:U:O4'	2.18	0.43
1:1A:2055:C:H4'	1:1A:2056:G:H5"	2.00	0.43
1:1A:2130:U:H2'	1:1A:2158:A:N1	2.33	0.43
1:1A:2492:U:H2'	1:1A:2493:U:H6	1.82	0.43
1:1A:2617:C:C2'	1:1A:2618:G:H5'	2.48	0.43
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.99	0.43
1:1A:2883:A:H5'	1:1A:2884:U:H5'	2.01	0.43
3:1D:116:GLN:HE21	3:1D:116:GLN:HB3	1.64	0.43
7:1H:140:LYS:HB2	7:1H:140:LYS:HE3	1.85	0.43
10:1P:71:VAL:HG23	10:1P:72:PRO:HA	2.01	0.43
28:17:5:TRP:HA	28:17:5:TRP:CE3	2.53	0.43
31:1a:819:A:H5'	31:1a:820:U:H5	1.84	0.43
33:1c:45:LYS:HE3	33:1c:45:LYS:HB2	1.86	0.43
34:1d:89:THR:O	34:1d:91:SER:N	2.51	0.43
35:1e:30:ALA:O	35:1e:45:PHE:HA	2.18	0.43
36:1f:1:MET:N	36:1f:69:GLU:OE1	2.48	0.43
36:1f:18:GLN:HA	36:1f:21:LEU:HD12	1.99	0.43
37:1g:15:ASP:OD2	37:1g:44:TYR:OH	2.36	0.43
52:1v:84:THR:HG22	52:1v:97:SER:HB3	2.01	0.43
1:2A:30:G:C6	1:2A:31:C:C4	3.06	0.43
1:2A:243:U:OP1	29:28:6:THR:OG1	2.33	0.43
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:614(C):A:C4	5:2F:180:GLY:HA2	2.54	0.43
1:2A:1590:U:H2'	1:2A:1591:G:H8	1.83	0.43
18:2X:5:TYR:CE2	23:22:30:ARG:HB2	2.53	0.43
20:2Z:44:PHE:CE2	20:2Z:86:VAL:HG11	2.53	0.43
20:2Z:69:THR:HG22	20:2Z:90:VAL:HG22	2.01	0.43
22:21:45:ASN:O	22:21:63:ALA:HA	2.19	0.43
31:2a:1426:C:C2	31:2a:1475:G:C2	3.06	0.43
33:2c:98:ASN:OD1	33:2c:98:ASN:N	2.51	0.43
46:2p:15:PRO:O	46:2p:41:PRO:HD2	2.18	0.43
49:2s:12:ASP:HB3	49:2s:14:HIS:NE2	2.34	0.43
52:2v:199:ILE:HB	52:2v:200:PRO:CD	2.30	0.43
52:2v:342:TYR:N	52:2v:390:VAL:O	2.49	0.43
52:2v:345:THR:N	52:2v:398:ILE:HD11	2.34	0.43
52:2v:606:MET:HE3	52:2v:649:LEU:HD13	2.00	0.43
52:2v:631:ILE:HD12	52:2v:644:ARG:O	2.18	0.43
1:1A:18:C:H2'	1:1A:19:C:H6	1.83	0.43
1:1A:19:C:N4	1:1A:521:G:H1	2.14	0.43
1:1A:444:C:O2'	1:1A:445:C:H5'	2.19	0.43
1:1A:805:G:N2	1:1A:829:A:OP1	2.48	0.43
1:1A:1002:G:C6	1:1A:1154:G:N2	2.87	0.43
1:1A:1395:A:C6	1:1A:1398:C:C2	3.06	0.43
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.34	0.43
1:1A:1909:C:N4	1:1A:1921:G:H22	2.12	0.43
1:1A:2649:U:H2'	1:1A:2650:U:C6	2.54	0.43
2:1B:2:C:H2'	2:1B:3:C:H6	1.81	0.43
5:1F:182:ASN:O	5:1F:186:ILE:HG13	2.19	0.43
6:1G:96:ARG:N	6:1G:99:MET:HE2	2.33	0.43
13:1S:61:ASN:HD22	13:1S:64:GLU:HG3	1.84	0.43
28:17:10:ARG:O	28:17:14:LYS:HG3	2.19	0.43
29:18:50:LEU:HD23	29:18:50:LEU:HA	1.88	0.43
31:1a:381:C:H2'	31:1a:382:A:O4'	2.18	0.43
31:1a:762:C:H2'	31:1a:763:G:C8	2.53	0.43
31:1a:977:A:H1'	31:1a:982:U:O4	2.18	0.43
31:1a:1251:A:N3	31:1a:1369:C:O2'	2.51	0.43
34:1d:17:VAL:HG12	34:1d:18:LYS:H	1.84	0.43
38:1h:82:HIS:HB3	38:1h:138:TRP:CE2	2.53	0.43
52:1v:179:ASP:O	52:1v:183:MET:HA	2.19	0.43
52:1v:610:VAL:HG13	52:1v:659:LEU:HD11	2.01	0.43
53:1w:57:THR:N	53:1w:69:GLN:O	2.30	0.43
1:2A:210:C:H2'	1:2A:211:A:C8	2.54	0.43
1:2A:311:A:C6	1:2A:328:U:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2048:G:O4'	1:2A:2823:A:C6	2.71	0.43
1:2A:2080:G:OP1	22:21:35:THR:OG1	2.35	0.43
1:2A:2391:G:O2'	1:2A:2424:C:N4	2.49	0.43
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.60	0.43
7:2H:126:PRO:HB2	7:2H:127:GLU:H	1.69	0.43
16:2V:35:LEU:N	16:2V:57:VAL:O	2.44	0.43
23:22:38:GLN:HB3	23:22:44:LEU:HD13	2.01	0.43
25:24:45:GLY:O	25:24:47:GLN:N	2.52	0.43
31:2a:422:C:H5'	31:2a:423:G:C5	2.54	0.43
31:2a:756:C:H2'	31:2a:757:U:C6	2.54	0.43
32:2b:71:VAL:HA	32:2b:93:VAL:HG23	1.99	0.43
34:2d:43:HIS:HA	34:2d:46:LYS:HE3	2.01	0.43
39:2i:71:SER:HA	39:2i:74:ILE:HD12	2.00	0.43
48:2r:53:ARG:NE	48:2r:58:LEU:O	2.51	0.43
50:2t:57:ARG:HH22	50:2t:100:ILE:HD12	1.83	0.43
52:2v:164:MET:HG3	52:2v:257:PRO:HB3	2.00	0.43
1:1A:457:A:O4'	1:1A:459:U:C6	2.72	0.43
1:1A:628:G:H2'	1:1A:629:G:C8	2.54	0.43
1:1A:1252:G:N7	15:1U:36:ARG:NH1	2.67	0.43
1:1A:1843:C:H5'	3:1D:253:GLN:OE1	2.18	0.43
1:1A:2633:G:H2'	1:1A:2634:G:O4'	2.19	0.43
4:1E:24:THR:HG22	4:1E:186:GLY:O	2.18	0.43
4:1E:55:ASN:O	4:1E:58:ARG:N	2.44	0.43
8:1N:123:TYR:HH	8:1N:130:HIS:CE1	2.35	0.43
9:1O:23:ARG:HD2	9:1O:23:ARG:HA	1.87	0.43
20:1Z:61:LEU:HD13	20:1Z:61:LEU:HA	1.81	0.43
20:1Z:150:LEU:HA	20:1Z:150:LEU:HD12	1.78	0.43
27:16:40:CYS:O	27:16:44:ARG:N	2.51	0.43
31:1a:1013:G:N2	31:1a:1015:A:H3'	2.33	0.43
31:1a:1428:A:H2'	31:1a:1429:C:H6	1.84	0.43
32:1b:189:ASP:OD1	32:1b:189:ASP:N	2.51	0.43
35:1e:8:GLU:HG2	35:1e:34:VAL:HG23	2.01	0.43
35:1e:95:ALA:HB1	35:1e:96:PRO:HD2	2.01	0.43
47:1q:34:LYS:HG2	47:1q:35:VAL:O	2.19	0.43
48:1r:34:TYR:CD1	48:1r:35:ARG:HG3	2.54	0.43
52:1v:195:ASP:OD1	52:1v:197:ARG:NH1	2.39	0.43
1:2A:445:C:O3'	15:2U:3:ARG:HD3	2.19	0.43
1:2A:527:C:N4	1:2A:2779:U:OP2	2.49	0.43
1:2A:580:C:H2'	1:2A:581:C:C6	2.54	0.43
1:2A:807:U:C2	1:2A:808:G:C8	3.06	0.43
1:2A:1021:A:H62	1:2A:1141:U:H3	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1795:C:H2'	1:2A:1796:U:O4'	2.19	0.43
1:2A:1971:A:O5'	3:2D:242:ARG:NH2	2.52	0.43
1:2A:2131:G:H22	1:2A:2158:A:N6	2.17	0.43
4:2E:147:PRO:HB2	4:2E:149:ARG:HG2	2.00	0.43
12:2R:24:GLN:HB3	12:2R:44:LEU:HD11	2.01	0.43
12:2R:29:LEU:HD21	12:2R:48:VAL:HG13	2.00	0.43
31:2a:259:G:H1	31:2a:267:C:H42	1.65	0.43
31:2a:539:A:H2'	31:2a:540:G:C8	2.54	0.43
31:2a:673:G:N2	31:2a:734:G:H1'	2.34	0.43
31:2a:1125:U:OP1	40:2j:35:SER:OG	2.27	0.43
31:2a:1347:G:N2	31:2a:1373:G:H2'	2.34	0.43
34:2d:32:ALA:HB3	58:2d:303:SF4:S2	2.59	0.43
52:2v:7:ASN:HA	52:2v:10:LYS:HB2	1.99	0.43
54:2y:9:A:H4'	54:2y:46:7MG:OP2	2.18	0.43
1:1A:39:C:H2'	1:1A:40:C:O4'	2.19	0.43
1:1A:287:C:H2'	1:1A:288:C:C6	2.54	0.43
1:1A:724:U:H2'	1:1A:725:G:O4'	2.18	0.43
1:1A:910:A:C4	11:1Q:13:GLN:NE2	2.87	0.43
1:1A:1354:A:N7	1:1A:1355:G:C4	2.86	0.43
1:1A:1639:U:O2'	1:1A:1640:C:H5'	2.19	0.43
1:1A:1889:A:N3	1:1A:2086:U:O2'	2.52	0.43
1:1A:2048:G:N2	1:1A:2621:A:H1'	2.34	0.43
1:1A:2176:A:H2'	1:1A:2177:C:C6	2.54	0.43
1:1A:2285:C:OP1	27:16:26:ASN:ND2	2.52	0.43
1:1A:2744:G:N2	7:1H:143:GLN:OE1	2.51	0.43
1:1A:2762:G:C6	1:1A:2763:G:C4	3.07	0.43
5:1F:53:THR:O	5:1F:55:GLY:N	2.52	0.43
9:1O:101:PRO:HA	9:1O:120:GLU:O	2.18	0.43
9:1O:108:GLU:H	9:1O:108:GLU:HG3	1.43	0.43
14:1T:110:ILE:O	14:1T:114:LEU:N	2.47	0.43
20:1Z:136:PHE:HD2	20:1Z:136:PHE:HA	1.72	0.43
29:18:17:THR:CG2	29:18:21:LYS:HB2	2.48	0.43
31:1a:63:C:H42	31:1a:104:G:H1	1.67	0.43
31:1a:448:A:OP2	31:1a:485:G:N2	2.44	0.43
31:1a:738:C:H2'	31:1a:739:C:C6	2.53	0.43
31:1a:829:G:H2'	31:1a:830:G:H8	1.84	0.43
31:1a:953:G:C6	31:1a:1229:A:C6	3.07	0.43
31:1a:1272:G:H2'	31:1a:1273:G:O4'	2.19	0.43
32:1b:30:ARG:HH21	32:1b:194:PRO:HB2	1.84	0.43
39:1i:65:VAL:HG11	39:1i:73:GLN:HB3	2.00	0.43
50:1t:56:MET:HE1	50:1t:85:MET:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:1v:2:LYS:HE2	52:1v:2:LYS:HB3	1.89	0.43
52:1v:2:LYS:O	52:1v:6:GLU:N	2.38	0.43
52:1v:104:ALA:HB3	52:1v:132:ARG:HB3	2.00	0.43
53:1w:30:THR:HG21	53:1w:179:LYS:NZ	2.33	0.43
53:1w:41:LEU:HD12	53:1w:41:LEU:HA	1.85	0.43
54:1x:47:U:H3'	54:1x:48:C:H5"	1.99	0.43
1:2A:27:G:OP2	1:2A:27:G:C8	2.72	0.43
1:2A:31:C:H5"	1:2A:1239:G:OP1	2.18	0.43
1:2A:321:G:H5'	5:2F:134:GLY:O	2.19	0.43
1:2A:531:C:N3	1:2A:563:G:C8	2.87	0.43
1:2A:816:C:OP1	1:2A:1185:C:O2'	2.26	0.43
1:2A:1269:A:H61	1:2A:2011:U:H3	1.67	0.43
1:2A:1344:G:N2	1:2A:1385:G:O4'	2.52	0.43
1:2A:1814:G:H4'	3:2D:51:VAL:HG21	1.99	0.43
1:2A:1824:G:H2'	1:2A:1825:A:H8	1.83	0.43
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.54	0.43
1:2A:2317:C:N4	1:2A:2318:G:O6	2.51	0.43
3:2D:127:VAL:HA	3:2D:193:VAL:HG23	2.00	0.43
5:2F:123:LEU:HD12	5:2F:124:LEU:N	2.34	0.43
5:2F:168:ARG:O	5:2F:170:LEU:N	2.49	0.43
8:2N:34:LEU:O	8:2N:49:GLY:HA3	2.18	0.43
8:2N:74:ARG:O	8:2N:83:LYS:N	2.51	0.43
8:2N:86:PRO:HD2	8:2N:89:LYS:HE2	2.01	0.43
9:2O:48:PRO:CB	31:2a:1422:G:H5"	2.47	0.43
9:2O:91:LEU:HB3	9:2O:111:PHE:CE1	2.54	0.43
14:2T:12:SER:HA	14:2T:15:VAL:HG23	2.00	0.43
27:26:5:VAL:HA	27:26:27:LYS:HE2	1.99	0.43
31:2a:563:A:O2'	31:2a:566:G:O2'	2.34	0.43
31:2a:1064:G:O6	31:2a:1191:A:N6	2.42	0.43
31:2a:1201:A:H1'	31:2a:1202:G:OP2	2.19	0.43
31:2a:1332:A:H2'	31:2a:1333:A:C8	2.54	0.43
31:2a:1492:A:H1'	31:2a:1493:A:C2	2.54	0.43
38:2h:23:SER:OG	38:2h:60:ARG:HG3	2.19	0.43
40:2j:10:GLY:HA3	40:2j:16:LEU:HD21	2.01	0.43
42:2l:102:ARG:HB3	42:2l:109:GLY:HA2	2.00	0.43
1:1A:145:G:H2'	1:1A:146:G:O4'	2.18	0.43
1:1A:457:A:O4'	1:1A:459:U:N1	2.51	0.43
1:1A:572:A:OP2	16:1V:78:LYS:NZ	2.52	0.43
1:1A:723:G:H2'	1:1A:724:U:O4'	2.19	0.43
1:1A:878:A:H3'	1:1A:879:G:H8	1.84	0.43
1:1A:972:G:H3'	1:1A:973:A:H2'	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1336:A:H2'	1:1A:1337:G:C8	2.54	0.43
1:1A:2329:G:H2'	1:1A:2330:G:C8	2.54	0.43
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.19	0.43
2:1B:13:A:O2'	2:1B:14:U:H3'	2.19	0.43
2:1B:60:C:C2	2:1B:61:G:C8	3.07	0.43
3:1D:119:ALA:O	3:1D:123:ALA:HB2	2.19	0.43
9:1O:13:ASN:OD1	9:1O:97:ARG:N	2.52	0.43
19:1Y:26:LYS:HA	19:1Y:26:LYS:HD2	1.87	0.43
31:1a:235:C:H2'	31:1a:236:G:C8	2.53	0.43
31:1a:292:G:N7	31:1a:293:G:H1'	2.33	0.43
31:1a:501:C:H2'	31:1a:502:G:C8	2.54	0.43
31:1a:1058:G:H2'	31:1a:1059:C:O4'	2.19	0.43
34:1d:150:GLU:C	34:1d:152:SER:H	2.26	0.43
37:1g:151:TYR:HB3	37:1g:154:TYR:CD2	2.54	0.43
53:1w:18:LEU:O	53:1w:21:LEU:HB3	2.19	0.43
1:2A:272(C):G:H2'	1:2A:272(D):G:C8	2.53	0.43
1:2A:409:C:H2'	1:2A:410:G:H8	1.84	0.43
1:2A:1256:G:O2'	5:2F:82:ILE:HD11	2.19	0.43
1:2A:1458:C:H4'	1:2A:1459:G:O4'	2.18	0.43
1:2A:2274:A:C5	1:2A:2276:G:C8	3.07	0.43
1:2A:2512:C:H2'	1:2A:2513:G:O4'	2.19	0.43
1:2A:2653:U:OP2	1:2A:2654:A:O2'	2.30	0.43
1:2A:2730:C:H4'	4:2E:168:MET:O	2.19	0.43
3:2D:78:LYS:CE	3:2D:114:GLY:HA2	2.48	0.43
12:2R:70:LEU:C	12:2R:72:ASP:H	2.27	0.43
15:2U:66:ASN:ND2	15:2U:70:ARG:HH21	2.17	0.43
18:2X:25:LYS:HA	18:2X:81:VAL:O	2.18	0.43
19:2Y:19:LYS:HE2	19:2Y:20:TYR:CE2	2.54	0.43
31:2a:38:G:H4'	31:2a:547:A:N6	2.34	0.43
31:2a:148:G:H2'	31:2a:149:A:C8	2.54	0.43
31:2a:858:G:H8	31:2a:858:G:OP2	2.02	0.43
31:2a:1413:A:C2	31:2a:1414:U:C2	3.07	0.43
43:2m:22:ILE:O	43:2m:24:GLY:N	2.52	0.43
45:2o:87:ILE:HG22	45:2o:88:ARG:H	1.84	0.43
52:2v:169:GLY:O	52:2v:173:THR:OG1	2.37	0.43
53:2w:55:ILE:HD12	53:2w:55:ILE:HA	1.88	0.43
1:1A:324:A:H2'	1:1A:325:G:O4'	2.19	0.42
1:1A:699:A:H2'	1:1A:700:G:O4'	2.19	0.42
1:1A:736:C:H2'	1:1A:737:C:C6	2.54	0.42
1:1A:764:A:H5'	3:1D:210:GLY:HA2	2.01	0.42
1:1A:923:C:O4'	21:10:29:GLN:NE2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1359:A:N1	1:1A:1372:U:O4	2.52	0.42
1:1A:1703:G:O2'	31:1a:1429:C:H4'	2.19	0.42
1:1A:2019:A:C6	1:1A:2020:A:C5	3.07	0.42
1:1A:2146:C:H4'	1:1A:2147:G:C4	2.54	0.42
1:1A:2621:A:C6	1:1A:2622:C:C4	3.07	0.42
1:1A:2821:A:H2'	1:1A:2822:G:O4'	2.19	0.42
1:1A:2839:G:H5'	12:1R:46:GLY:HA2	2.01	0.42
3:1D:51:VAL:HG11	3:1D:54:ARG:HH11	1.84	0.42
6:1G:103:LEU:O	6:1G:106:LEU:HB3	2.19	0.42
18:1X:35:THR:HG23	18:1X:38:GLU:HB2	2.00	0.42
24:13:10:LYS:HD3	24:13:53:LEU:HD23	2.00	0.42
25:14:34:GLU:OE2	25:14:35:VAL:HG12	2.19	0.42
31:1a:154:C:N3	31:1a:168:G:N2	2.66	0.42
31:1a:189(K):U:H2'	31:1a:189(L):G:H8	1.84	0.42
31:1a:869:G:O2'	31:1a:872:A:C5	2.72	0.42
31:1a:1372:U:H2'	31:1a:1373:G:O4'	2.19	0.42
32:1b:8:LYS:HB2	32:1b:9:GLU:H	1.68	0.42
35:1e:144:THR:O	35:1e:148:VAL:HG23	2.18	0.42
37:1g:29:LYS:HG3	37:1g:101:LEU:HB3	2.00	0.42
52:1v:140:ASP:O	52:1v:172:ASP:N	2.51	0.42
54:1x:23:A:H2'	54:1x:24:G:H8	1.83	0.42
1:2A:79:G:O2'	1:2A:346:A:N3	2.41	0.42
1:2A:466:A:H5'	28:27:21:ARG:NH2	2.34	0.42
1:2A:499:U:H2'	1:2A:500:G:O4'	2.18	0.42
1:2A:1257:C:H5'	5:2F:75:HIS:CE1	2.54	0.42
1:2A:1676:A:C2	1:2A:1993:U:H5'	2.54	0.42
1:2A:1996:C:H4'	1:2A:1997:G:H5'	2.00	0.42
1:2A:2818:G:N2	1:2A:2829:C:C2	2.87	0.42
1:2A:2872:G:C2	1:2A:2873:A:N6	2.86	0.42
1:2A:2880:C:O2'	12:2R:90:ARG:NH1	2.46	0.42
3:2D:69:ARG:HE	3:2D:130:ALA:HB2	1.84	0.42
4:2E:111:ARG:HA	12:2R:1:MET:SD	2.59	0.42
5:2F:150:GLY:HA2	5:2F:172:TRP:CE3	2.53	0.42
14:2T:13:ARG:HE	14:2T:13:ARG:HB3	1.60	0.42
14:2T:119:LYS:HB2	31:2a:1442(A):G:N1	2.34	0.42
30:29:32:HIS:O	30:29:34:GLN:HG3	2.19	0.42
31:2a:814:A:OP2	31:2a:816:A:N6	2.40	0.42
31:2a:966:M2G:H1'	54:2x:34:G:H4'	2.00	0.42
31:2a:1411:C:H2'	31:2a:1412:C:H6	1.84	0.42
32:2b:97:TRP:CH2	32:2b:102:LEU:HD13	2.48	0.42
47:2q:7:THR:HG23	47:2q:58:GLU:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:2s:28:LYS:HD2	49:2s:46:GLY:O	2.19	0.42
50:2t:22:ARG:O	50:2t:26:ASN:N	2.38	0.42
52:2v:84:THR:HG22	52:2v:97:SER:HB3	2.01	0.42
52:2v:137:ASN:HA	52:2v:261:GLY:O	2.19	0.42
1:1A:296:C:H2'	1:1A:297:C:C6	2.53	0.42
1:1A:729:G:C5	3:1D:208:LYS:HB2	2.54	0.42
1:1A:806:C:O2	1:1A:2444:G:O2'	2.38	0.42
1:1A:1114:G:H2'	1:1A:1115:G:O4'	2.18	0.42
1:1A:1320:C:O2'	1:1A:1329:U:OP2	2.34	0.42
1:1A:1615:C:O2'	1:1A:1616:A:H5"	2.19	0.42
1:1A:1640:C:H2'	1:1A:1641:A:H8	1.84	0.42
1:1A:1806:C:H2'	1:1A:1807:G:O4'	2.18	0.42
3:1D:215:LEU:HA	3:1D:215:LEU:HD23	1.82	0.42
27:16:8:LYS:HD3	29:18:34:TRP:CD2	2.54	0.42
31:1a:7:G:H5'	31:1a:298:A:O4'	2.19	0.42
31:1a:36:C:H1'	42:1l:118:SER:HB3	2.00	0.42
31:1a:222:U:H2'	31:1a:223:U:C6	2.54	0.42
31:1a:560:U:H4'	31:1a:561:U:O5'	2.18	0.42
31:1a:967:5MC:OP1	31:1a:969:A:H5'	2.19	0.42
31:1a:1070:U:H2'	31:1a:1071:C:C6	2.54	0.42
31:1a:1376:U:OP1	37:1g:98:SER:OG	2.31	0.42
32:1b:231:GLU:H	32:1b:232:PRO:CD	2.32	0.42
34:1d:162:LEU:HD13	34:1d:181:MET:HE2	2.00	0.42
34:1d:204:ILE:H	34:1d:204:ILE:HG12	1.63	0.42
45:1o:26:GLU:OE2	45:1o:77:ARG:NE	2.50	0.42
52:1v:91:THR:HG22	52:1v:94:VAL:HG22	2.01	0.42
54:1x:21:A:H2'	54:1x:22:G:H5"	2.02	0.42
1:2A:66:C:H2'	1:2A:67:U:C6	2.54	0.42
1:2A:324:A:C2	1:2A:325:G:H1'	2.54	0.42
1:2A:329:G:H8	1:2A:329:G:OP1	2.03	0.42
1:2A:455:C:N3	1:2A:473:G:H5'	2.34	0.42
1:2A:1131:G:C8	1:2A:2025:C:H4'	2.54	0.42
1:2A:1361:G:H2'	1:2A:1362:C:C6	2.52	0.42
1:2A:2079:U:O3'	22:21:35:THR:HB	2.19	0.42
1:2A:2203:U:H1'	3:2D:151:LYS:HE2	2.00	0.42
1:2A:2552:2MU:H6	1:2A:2552:2MU:P	2.59	0.42
1:2A:2682:U:O4	1:2A:2728:U:H1'	2.18	0.42
5:2F:134:GLY:C	5:2F:135:LYS:HD2	2.44	0.42
6:2G:38:VAL:HG22	6:2G:93:THR:HG23	2.01	0.42
6:2G:74:LYS:O	6:2G:84:LYS:NZ	2.49	0.42
7:2H:46:GLU:HB3	7:2H:47:GLU:H	1.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2O:15:GLY:O	9:2O:47:ILE:HG12	2.19	0.42
19:2Y:51:VAL:HG13	19:2Y:56:PRO:HA	2.01	0.42
23:22:35:LEU:HD12	23:22:53:LEU:HD12	2.01	0.42
31:2a:311:C:OP1	46:2p:26:ARG:NH1	2.50	0.42
32:2b:15:VAL:O	32:2b:17:PHE:N	2.51	0.42
33:2c:122:GLU:HA	33:2c:125:GLU:HG2	2.01	0.42
39:2i:13:ALA:HB2	39:2i:68:GLY:HA3	2.00	0.42
42:2l:86:ARG:HG3	42:2l:87:GLY:O	2.19	0.42
52:2v:357:ARG:NH1	52:2v:373:ASP:OD2	2.46	0.42
1:1A:560:C:H4'	15:1U:52:ARG:CZ	2.49	0.42
1:1A:922:U:H2'	1:1A:923:C:C6	2.54	0.42
1:1A:1045:A:H3'	1:1A:1045:A:N3	2.34	0.42
1:1A:1371:G:H2'	1:1A:1372:U:C5	2.54	0.42
1:1A:1565:C:O2'	1:1A:1566:A:O5'	2.34	0.42
1:1A:1591:G:H2'	1:1A:1592:C:H6	1.84	0.42
1:1A:2028:U:H2'	1:1A:2029:G:O4'	2.19	0.42
1:1A:2099:U:H2'	1:1A:2100:G:C8	2.55	0.42
3:1D:68:LYS:HE2	3:1D:70:TRP:CZ2	2.54	0.42
3:1D:98:VAL:C	3:1D:100:GLY:H	2.27	0.42
10:1P:30:THR:HG21	10:1P:34:GLY:C	2.43	0.42
10:1P:98:GLU:OE1	10:1P:102:ARG:NH1	2.52	0.42
13:1S:93:LYS:HG2	13:1S:95:HIS:HB2	2.00	0.42
16:1V:71:LEU:HD23	16:1V:71:LEU:HA	1.83	0.42
18:1X:57:LEU:HD11	18:1X:78:LYS:HG3	2.00	0.42
20:1Z:154:ASP:O	20:1Z:155:LEU:HB2	2.18	0.42
25:14:56:VAL:HG23	25:14:57:GLU:H	1.84	0.42
31:1a:519:C:H2'	31:1a:520:A:C8	2.55	0.42
31:1a:629:G:H2'	31:1a:630:G:O4'	2.19	0.42
32:1b:171:ALA:HA	56:1b:308:MG:MG	1.43	0.42
34:1d:142:PRO:HA	34:1d:185:PHE:HD2	1.83	0.42
38:1h:85:ARG:NH1	38:1h:134:ILE:HG23	2.35	0.42
1:2A:444:C:OP2	5:2F:45:ARG:NH2	2.52	0.42
1:2A:480:A:N3	1:2A:499:U:O2'	2.43	0.42
1:2A:1024:G:N2	1:2A:1144:G:O4'	2.39	0.42
1:2A:1259:G:H2'	1:2A:1260:G:H8	1.84	0.42
1:2A:1470:G:O2'	1:2A:1520:G:O6	2.29	0.42
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.55	0.42
1:2A:2030:A:H5"	1:2A:2031:A:OP1	2.19	0.42
1:2A:2393:A:H2'	1:2A:2394:C:O4'	2.19	0.42
1:2A:2543:G:H21	1:2A:2646:C:H5"	1.83	0.42
1:2A:2714:G:H2'	1:2A:2715:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.81	0.42
6:2G:64:THR:HG22	6:2G:94:LEU:HD11	2.01	0.42
9:2O:21:CYS:HB2	9:2O:39:ILE:HD12	2.01	0.42
13:2S:28:VAL:HG11	13:2S:98:VAL:HG13	2.02	0.42
13:2S:49:VAL:HG12	13:2S:73:LEU:HD12	2.00	0.42
17:2W:35:ILE:HG23	26:25:28:PRO:HD2	2.01	0.42
27:26:40:CYS:O	27:26:44:ARG:N	2.47	0.42
31:2a:1134:G:H1	31:2a:1140:C:N4	2.17	0.42
34:2d:191:ARG:HA	34:2d:191:ARG:HD2	1.88	0.42
35:2e:41:VAL:O	35:2e:66:MET:HA	2.19	0.42
36:2f:36:ARG:NH2	36:2f:66:GLU:OE1	2.25	0.42
37:2g:111:ARG:HG2	37:2g:113:GLU:HG2	2.01	0.42
40:2j:69:ASN:O	40:2j:70:ARG:NH1	2.46	0.42
49:2s:33:THR:HG21	49:2s:49:ILE:HD11	2.01	0.42
49:2s:80:TYR:CZ	49:2s:82:GLY:HA2	2.54	0.42
50:2t:57:ARG:HH12	50:2t:100:ILE:HD12	1.83	0.42
52:2v:-34:ARG:HG3	52:2v:-32:LEU:HG	2.01	0.42
52:2v:687:LEU:O	52:2v:689:LYS:N	2.48	0.42
1:1A:904:C:O2'	20:1Z:169:GLU:OE2	2.37	0.42
1:1A:1011:G:C4	1:1A:1151:G:N2	2.87	0.42
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.53	0.42
1:1A:1474:C:H2'	1:1A:1475:G:C8	2.54	0.42
1:1A:1635:G:C6	1:1A:1636:C:C4	3.07	0.42
1:1A:2134:A:O2'	1:1A:2135:A:OP1	2.32	0.42
1:1A:2259:G:C2	1:1A:2282:G:N1	2.88	0.42
1:1A:2266:A:H5'	1:1A:2267:A:N7	2.34	0.42
3:1D:95:LEU:O	3:1D:102:LYS:HA	2.19	0.42
3:1D:223:GLY:HA3	3:1D:231:HIS:CE1	2.54	0.42
6:1G:10:LYS:O	6:1G:15:VAL:HG23	2.19	0.42
16:1V:25:LEU:C	16:1V:27:ALA:H	2.27	0.42
19:1Y:44:ILE:HD13	19:1Y:44:ILE:HA	1.90	0.42
22:11:40:ARG:HE	22:11:40:ARG:HB2	1.30	0.42
31:1a:33:A:H2'	31:1a:34:C:C6	2.54	0.42
31:1a:523:A:N6	42:1l:92:0TD:OD2	2.48	0.42
31:1a:600:C:C5'	38:1h:129:VAL:HA	2.48	0.42
31:1a:736:C:OP1	48:1r:72:ARG:NH2	2.41	0.42
31:1a:1030(B):C:O2	31:1a:1030(B):C:H2'	2.17	0.42
31:1a:1296:C:H4'	31:1a:1302:U:C4	2.55	0.42
31:1a:1327:C:H2'	31:1a:1328:C:C6	2.55	0.42
31:1a:1423:G:H2'	31:1a:1424:C:C6	2.54	0.42
32:1b:113:HIS:O	32:1b:117:GLU:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1f:24:GLU:O	36:1f:28:ARG:N	2.40	0.42
42:1l:90:VAL:HB	42:1l:93:LEU:HB2	2.00	0.42
50:1t:13:LEU:HD13	50:1t:17:ARG:HH12	1.84	0.42
52:1v:442:THR:HA	52:1v:449:THR:HA	2.02	0.42
52:1v:601:ILE:HD13	52:1v:601:ILE:H	1.84	0.42
53:1w:132:ILE:O	53:1w:135:GLU:HB3	2.20	0.42
1:2A:45:C:OP2	1:2A:215:G:H2'	2.19	0.42
1:2A:260:G:O4'	1:2A:621:A:H1'	2.19	0.42
1:2A:686:G:C8	28:27:7:PRO:HA	2.54	0.42
1:2A:1531:C:H42	1:2A:1538:G:H1	1.66	0.42
1:2A:1711:C:H2'	1:2A:1712:C:C6	2.55	0.42
1:2A:2257:U:O2'	1:2A:2258:C:H5'	2.20	0.42
1:2A:2367:G:H2'	1:2A:2368:C:C6	2.54	0.42
1:2A:2483:C:C4	1:2A:2484:G:N7	2.87	0.42
10:2P:97:PRO:HG3	10:2P:112:LEU:HD12	2.01	0.42
31:2a:303:A:H2'	31:2a:304:U:O4'	2.19	0.42
31:2a:1291:G:H4'	39:2i:39:GLY:HA3	2.01	0.42
31:2a:1494:G:H3'	31:2a:1495:U:H5"	2.01	0.42
47:2q:46:ASP:OD1	47:2q:49:GLU:N	2.52	0.42
52:2v:124:GLN:HA	52:2v:127:LYS:HB3	2.01	0.42
52:2v:151:ARG:NH2	52:2v:151:ARG:HB3	2.34	0.42
1:1A:310:A:C2	1:1A:330:A:C5	3.07	0.42
1:1A:1243:G:O2'	10:1P:4:SER:O	2.36	0.42
1:1A:1376:C:N4	1:1A:1377:G:C6	2.87	0.42
1:1A:1649:G:N1	1:1A:2009:G:C6	2.88	0.42
1:1A:1688:U:C4	1:1A:1698:A:H2	2.38	0.42
1:1A:2298:A:H5"	1:1A:2299:G:OP2	2.19	0.42
1:1A:2361:A:H5'	29:18:27:THR:HG22	2.01	0.42
1:1A:2494:G:C2'	1:1A:2495:G:H5'	2.49	0.42
1:1A:2625:G:H2'	1:1A:2626:C:O4'	2.19	0.42
1:1A:2685:G:H5'	9:1O:68:GLU:CD	2.44	0.42
4:1E:12:THR:HG22	4:1E:13:ARG:N	2.28	0.42
6:1G:72:ARG:NH1	6:1G:85:GLY:O	2.51	0.42
10:1P:8:PRO:HB2	10:1P:12:ALA:HB3	2.01	0.42
12:1R:96:ARG:HH21	12:1R:117:VAL:HG13	1.83	0.42
13:1S:48:LEU:CD2	13:1S:82:ILE:HD11	2.49	0.42
15:1U:28:ARG:NH1	15:1U:38:THR:OG1	2.46	0.42
16:1V:1:MET:HB3	16:1V:99:ILE:HD11	2.01	0.42
24:13:31:LEU:HD23	24:13:31:LEU:HA	1.87	0.42
28:17:1:MET:HE2	28:17:1:MET:HB3	1.77	0.42
31:1a:1144:G:N2	31:1a:1146:A:H62	2.15	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:1277:C:O2'	31:1a:1279:A:H8	2.03	0.42
31:1a:1515:C:O2'	31:1a:1516:G:H5'	2.19	0.42
52:1v:549:ALA:HB1	52:1v:591:LYS:HG2	2.01	0.42
52:1v:660:ARG:H	52:1v:660:ARG:HG2	1.71	0.42
1:2A:478:A:N6	1:2A:480:A:N1	2.67	0.42
1:2A:478:A:C6	1:2A:480:A:C6	3.08	0.42
1:2A:494:G:OP1	17:2W:8:ARG:HD3	2.19	0.42
1:2A:754:C:H2'	1:2A:755:C:H6	1.81	0.42
1:2A:948:G:N2	1:2A:985:C:OP2	2.52	0.42
1:2A:1015:G:H2'	1:2A:1016:G:H8	1.84	0.42
1:2A:1345:C:H42	1:2A:1601:G:H1	1.66	0.42
1:2A:1942:5MC:OP2	1:2A:1943:U:O2'	2.12	0.42
1:2A:1959:G:H1'	31:2a:1418:A:N3	2.35	0.42
1:2A:2052:G:H2'	1:2A:2053:G:H8	1.84	0.42
1:2A:2370:G:C6	1:2A:2371:G:C6	3.08	0.42
1:2A:2562:U:H4'	9:2O:25:LEU:CD2	2.48	0.42
1:2A:2660:A:N1	52:2v:635:GLU:HG2	2.34	0.42
1:2A:2724:C:OP1	4:2E:118:LYS:HD3	2.20	0.42
6:2G:41:GLN:OE1	6:2G:56:ALA:HB1	2.20	0.42
7:2H:149:ARG:HE	7:2H:154:PRO:HD3	1.84	0.42
11:2Q:6:ARG:NE	20:2Z:195:GLU:HB3	2.35	0.42
11:2Q:76:LYS:O	11:2Q:89:ASN:N	2.52	0.42
13:2S:24:LEU:HD22	13:2S:41:ASP:HA	2.02	0.42
22:21:11:ARG:HG3	22:21:12:PRO:HD2	2.00	0.42
31:2a:373:A:H61	31:2a:391:G:H1'	1.85	0.42
31:2a:578:C:O2'	31:2a:728:A:N3	2.40	0.42
31:2a:781:A:OP2	31:2a:800:G:N2	2.45	0.42
31:2a:967:5MC:H2'	31:2a:968:A:N7	2.35	0.42
31:2a:1423:G:H1	31:2a:1477:C:H42	1.68	0.42
31:2a:1523:G:C6	31:2a:1524:C:C4	3.08	0.42
34:2d:155:LEU:HD23	34:2d:155:LEU:HA	1.88	0.42
41:2k:82:VAL:O	41:2k:109:VAL:HG12	2.20	0.42
48:2r:38:GLU:O	48:2r:41:LYS:HG2	2.19	0.42
52:2v:236:GLU:H	52:2v:236:GLU:HG3	1.69	0.42
1:1A:194:G:H2'	1:1A:195:A:O4'	2.20	0.42
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.54	0.42
1:1A:373:U:O2	1:1A:423:A:H2	2.03	0.42
1:1A:467:G:H2'	1:1A:468:G:O4'	2.19	0.42
1:1A:495:G:O2'	17:1W:57:ASN:HB3	2.19	0.42
1:1A:518:G:H2'	1:1A:519:U:H6	1.85	0.42
1:1A:570:G:H2'	1:1A:2030:A:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:816:C:O2'	1:1A:932:G:O6	2.38	0.42
1:1A:844:C:O2'	1:1A:845:G:H5'	2.20	0.42
1:1A:968:G:C2	1:1A:969:U:C2	3.07	0.42
1:1A:1440:G:H2'	1:1A:1441:G:H8	1.84	0.42
1:1A:1466:G:H2'	1:1A:1547:C:N4	2.35	0.42
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.18	0.42
1:1A:2463:C:C2	1:1A:2488:A:C2	3.08	0.42
1:1A:2741:A:N6	1:1A:2763:G:O2'	2.47	0.42
3:1D:158:ALA:HB3	3:1D:161:THR:HG21	2.02	0.42
9:1O:13:ASN:HD21	9:1O:96:THR:HG23	1.84	0.42
20:1Z:28:MET:HE3	20:1Z:59:LEU:HD12	2.01	0.42
23:12:3:LEU:HD12	23:12:7:ARG:NH2	2.34	0.42
31:1a:383:A:C5	31:1a:384:G:H1'	2.55	0.42
31:1a:571:U:H5"	31:1a:819:A:C6	2.55	0.42
31:1a:1367:C:OP1	39:1i:114:TYR:HA	2.20	0.42
31:1a:1376:U:H2'	31:1a:1377:A:C8	2.43	0.42
40:1j:62:HIS:HB3	44:1n:59:ALA:HB3	2.01	0.42
50:1t:44:ALA:O	50:1t:91:LEU:HB3	2.19	0.42
52:1v:160:ARG:NH1	52:1v:256:THR:OG1	2.52	0.42
52:1v:605:ILE:HD11	52:1v:677:GLN:HG2	2.01	0.42
53:1w:142:LYS:HA	53:1w:142:LYS:HD3	1.85	0.42
1:2A:419:C:H2'	1:2A:420:C:O4'	2.20	0.42
1:2A:720:C:H2'	1:2A:721:C:C6	2.55	0.42
1:2A:727:A:C6	1:2A:728:G:C6	3.07	0.42
1:2A:1651:G:C5'	12:2R:39:PRO:HG2	2.46	0.42
1:2A:1668:A:C5	1:2A:1674:G:C5	3.08	0.42
1:2A:2684:U:OP1	14:2T:53:ARG:HD3	2.19	0.42
2:2B:1:U:H6	2:2B:1:U:O5'	2.02	0.42
3:2D:95:LEU:HD23	3:2D:95:LEU:HA	1.85	0.42
13:2S:99:LYS:HE2	13:2S:103:GLU:OE2	2.19	0.42
14:2T:25:GLY:H	14:2T:49:VAL:HG23	1.84	0.42
15:2U:47:TYR:HA	15:2U:50:ARG:NH2	2.35	0.42
18:2X:8:ILE:H	18:2X:8:ILE:HG12	1.74	0.42
18:2X:57:LEU:O	18:2X:77:LYS:HG3	2.20	0.42
20:2Z:28:MET:HG3	20:2Z:35:ARG:HB2	2.01	0.42
21:20:40:GLN:HE22	21:20:45:PHE:H	1.68	0.42
31:2a:539:A:H2'	31:2a:540:G:H8	1.84	0.42
31:2a:769:G:H4'	31:2a:1513:A:H4'	2.02	0.42
31:2a:953:G:H5'	31:2a:965:A:N6	2.33	0.42
31:2a:1107:C:OP1	33:2c:172:ARG:HB2	2.20	0.42
31:2a:1271:G:N2	31:2a:1272:G:N7	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:1458:G:OP1	50:2t:35:THR:OG1	2.35	0.42
38:2h:51:VAL:HG12	38:2h:52:ASP:H	1.84	0.42
52:2v:639:ASN:HA	52:2v:640:ALA:O	2.19	0.42
54:2x:40:C:H5'	54:2y:36:A:C5'	2.50	0.42
1:1A:227:A:H5'	1:1A:228:A:C2	2.54	0.42
1:1A:1056:G:O2'	1:1A:1103:A:N6	2.51	0.42
1:1A:1786:A:C6	1:1A:1938:A:C2	3.07	0.42
1:1A:2140:C:O2	1:1A:2152:G:N1	2.53	0.42
1:1A:2331:G:N2	1:1A:2385:C:C4	2.87	0.42
1:1A:2863:C:H2'	1:1A:2864:G:H8	1.85	0.42
4:1E:152:LYS:HB3	8:1N:78:TYR:CE1	2.54	0.42
9:1O:70:LYS:HB3	9:1O:70:LYS:HE2	1.87	0.42
18:1X:1:MET:HB2	18:1X:2:LYS:H	1.60	0.42
31:1a:19:C:H2'	31:1a:20:U:H6	1.84	0.42
31:1a:528:C:H41	42:1l:49:ASN:CG	2.28	0.42
31:1a:736:C:H2'	31:1a:737:A:C8	2.55	0.42
31:1a:1038:C:C2'	31:1a:1039:C:H5'	2.50	0.42
31:1a:1151:A:O2'	31:1a:1152:A:O5'	2.34	0.42
31:1a:1396:A:C2	35:1e:19:MET:HG3	2.52	0.42
31:1a:1417:G:C6	31:1a:1482:G:C6	3.08	0.42
34:1d:79:PHE:HB2	34:1d:93:PHE:CZ	2.55	0.42
37:1g:109:ASN:HA	37:1g:119:ARG:HH21	1.83	0.42
39:1i:112:LYS:NZ	39:1i:113:LYS:O	2.53	0.42
47:1q:13:ASP:HB2	47:1q:49:GLU:OE2	2.20	0.42
47:1q:92:ARG:HA	47:1q:95:TYR:CE2	2.55	0.42
52:1v:73:PHE:HD2	52:1v:78:ARG:HA	1.83	0.42
52:1v:99:ARG:NH2	52:1v:312:LEU:HG	2.35	0.42
52:1v:673:PHE:CG	52:1v:674:ASP:N	2.87	0.42
53:1w:89:GLY:O	53:1w:90:LEU:HD23	2.20	0.42
1:2A:154(A):C:H42	1:2A:171:G:H1	1.66	0.42
1:2A:247:G:H4'	1:2A:386:G:C5	2.54	0.42
1:2A:300:A:H2'	1:2A:334:C:O2'	2.20	0.42
1:2A:536:A:H2'	1:2A:537:C:C6	2.55	0.42
1:2A:848:G:C4	1:2A:933:A:H8	2.37	0.42
1:2A:1911:PSU:H4'	1:2A:1912:A:OP1	2.19	0.42
1:2A:2226:C:H2'	1:2A:2227:A:O4'	2.19	0.42
1:2A:2460:U:H2'	1:2A:2461:C:O4'	2.19	0.42
1:2A:2721:A:H2'	1:2A:2722:G:O4'	2.20	0.42
3:2D:242:ARG:HD3	3:2D:246:PRO:HG3	2.02	0.42
3:2D:247:ALA:HA	3:2D:254:THR:H	1.85	0.42
5:2F:53:THR:HG22	5:2F:56:GLU:OE1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:116:ASP:OD1	5:2F:119:ARG:NH2	2.53	0.42
5:2F:170:LEU:HD12	5:2F:170:LEU:HA	1.84	0.42
6:2G:4:ASP:HA	6:2G:8:LYS:NZ	2.35	0.42
7:2H:91:GLY:HA3	7:2H:94:TYR:CD2	2.55	0.42
12:2R:57:ARG:HH22	12:2R:61:HIS:HD2	1.67	0.42
21:20:48:GLY:HA3	21:20:80:HIS:ND1	2.34	0.42
31:2a:339:C:H2'	31:2a:340:U:C6	2.55	0.42
31:2a:1014:A:P	49:2s:18:LYS:HZ2	2.41	0.42
31:2a:1030(A):G:N2	31:2a:1030(D):A:OP2	2.51	0.42
33:2c:187:ALA:N	33:2c:198:VAL:O	2.41	0.42
34:2d:61:LYS:HB2	34:2d:203:VAL:HG13	2.01	0.42
36:2f:76:ALA:HB1	36:2f:80:ARG:HH22	1.85	0.42
38:2h:110:ALA:HB3	38:2h:121:ASP:HB3	2.02	0.42
39:2i:28:VAL:HG22	39:2i:63:ILE:HB	2.02	0.42
39:2i:65:VAL:HG21	39:2i:73:GLN:HB3	2.02	0.42
47:2q:95:TYR:HA	47:2q:98:LEU:HD12	2.02	0.42
52:2v:99:ARG:NH1	52:2v:100:VAL:HG22	2.34	0.42
52:2v:326:THR:HB	52:2v:377:VAL:HG13	2.01	0.42
1:1A:68:G:H2'	1:1A:69:C:H6	1.85	0.42
1:1A:188:G:H1	1:1A:208:C:H42	1.67	0.42
1:1A:494:G:H4'	17:1W:6:ILE:HB	2.00	0.42
1:1A:511:U:C5	1:1A:512:G:C5	3.07	0.42
1:1A:833:U:C4	1:1A:834:C:C5	3.08	0.42
1:1A:1326:U:O4	1:1A:1647:G:H1'	2.20	0.42
1:1A:1374:G:C6	1:1A:1375:C:C4	3.07	0.42
1:1A:1906:G:C8	1:1A:1929:G:H2'	2.55	0.42
1:1A:2399:G:C2	1:1A:2400:G:C4	3.08	0.42
1:1A:2524:G:N2	1:1A:2525:G:H1'	2.35	0.42
3:1D:35:LYS:O	3:1D:62:TYR:N	2.52	0.42
6:1G:16:ARG:CZ	6:1G:31:VAL:HG21	2.50	0.42
12:1R:53:HIS:HB2	12:1R:94:TYR:HE2	1.84	0.42
12:1R:60:LEU:HD21	12:1R:64:ARG:CZ	2.49	0.42
16:1V:49:THR:HA	16:1V:50:PRO:HA	1.79	0.42
18:1X:44:GLU:HG3	18:1X:51:VAL:HG23	2.02	0.42
31:1a:110:C:H2'	31:1a:111:G:O4'	2.20	0.42
31:1a:1166:G:N2	31:1a:1170:A:OP2	2.52	0.42
37:1g:78:ARG:HH21	37:1g:79:ARG:NH2	2.18	0.42
40:1j:39:PRO:HB3	40:1j:70:ARG:CZ	2.50	0.42
47:1q:51:TYR:HE1	47:1q:76:LEU:HB2	1.84	0.42
50:1t:65:LYS:HA	50:1t:68:LYS:HD3	2.01	0.42
52:1v:420:ASP:OD1	52:1v:423:LYS:HE3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1w:38:LEU:HD22	53:1w:38:LEU:HA	1.76	0.42
54:1y:50:U:H2'	54:1y:51:U:O4'	2.19	0.42
1:2A:685:A:C2	1:2A:689:A:C6	3.07	0.42
1:2A:783:A:N7	1:2A:785:G:H1'	2.35	0.42
1:2A:1426:G:H5"	1:2A:1427:A:OP2	2.20	0.42
1:2A:2070:G:C2	1:2A:2442:C:C2	3.08	0.42
1:2A:2287:A:H2	1:2A:2346:A:H62	1.67	0.42
1:2A:2439:A:H5'	1:2A:2439:A:H8	1.84	0.42
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	2.01	0.42
5:2F:129:PHE:HB2	5:2F:132:VAL:HG21	2.01	0.42
20:2Z:183:LEU:O	20:2Z:185:GLU:N	2.50	0.42
31:2a:656:C:O2'	45:2o:28:GLN:NE2	2.53	0.42
31:2a:1488:G:H2'	31:2a:1489:G:C8	2.55	0.42
31:2a:1512:U:H2'	31:2a:1513:A:C8	2.54	0.42
32:2b:24:TRP:H	32:2b:24:TRP:HD1	1.67	0.42
35:2e:7:GLU:HB3	35:2e:35:GLY:O	2.19	0.42
35:2e:57:LYS:HE3	35:2e:57:LYS:HB2	1.79	0.42
35:2e:78:HIS:NE2	35:2e:142:LEU:HD23	2.35	0.42
37:2g:20:ASP:HB3	37:2g:23:VAL:HB	2.00	0.42
37:2g:111:ARG:NH2	37:2g:123:GLU:OE1	2.39	0.42
38:2h:69:ARG:NH1	38:2h:73:ASP:O	2.53	0.42
47:2q:64:PRO:HB3	47:2q:70:ARG:NH1	2.35	0.42
52:2v:118:SER:HA	52:2v:121:VAL:HG13	2.02	0.42
1:1A:143(A):C:H4'	18:1X:38:GLU:CD	2.45	0.42
1:1A:388:G:O2'	1:1A:389:G:N7	2.46	0.42
1:1A:646:A:H2'	1:1A:647:G:H8	1.85	0.42
1:1A:1028:A:H61	1:1A:1125:G:H2'	1.84	0.42
1:1A:1577:C:H2'	1:1A:1578:U:C6	2.55	0.42
1:1A:2220:G:H2'	1:1A:2221:G:H8	1.84	0.42
1:1A:2251:OMG:C6	1:1A:2252:G:C5	3.08	0.42
1:1A:2401:U:OP1	27:16:18:ARG:NH2	2.52	0.42
1:1A:2863:C:C2	1:1A:2864:G:C8	3.08	0.42
2:1B:32:C:C2	2:1B:51:G:N2	2.88	0.42
4:1E:152:LYS:HB3	8:1N:78:TYR:CD1	2.54	0.42
7:1H:54:ARG:NH2	7:1H:57:ASP:OD1	2.50	0.42
14:1T:49:VAL:HG12	14:1T:63:VAL:HG22	2.01	0.42
14:1T:55:ASN:H	14:1T:59:THR:HB	1.85	0.42
18:1X:29:TRP:CH2	18:1X:59:VAL:HG21	2.55	0.42
22:11:67:ILE:N	22:11:68:PRO:HD2	2.35	0.42
31:1a:39:G:N2	31:1a:40:C:C2	2.88	0.42
31:1a:358:U:OP1	52:1v:381:LYS:HE3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:1027:C:C4	31:1a:1034:G:N1	2.88	0.42
31:1a:1166:G:H2'	31:1a:1169:A:OP2	2.20	0.42
31:1a:1287:A:H2'	31:1a:1288:A:C8	2.54	0.42
31:1a:1403:C:O5'	31:1a:1403:C:H6	2.03	0.42
32:1b:162:ILE:HD11	32:1b:184:VAL:HG22	2.01	0.42
41:1k:73:MET:HG2	41:1k:103:LEU:HD21	2.01	0.42
52:1v:203:GLU:OE2	52:1v:204:GLU:N	2.53	0.42
52:1v:273:LEU:HD23	52:1v:273:LEU:HA	1.92	0.42
53:1w:1:MET:SD	53:1w:143:LEU:HD11	2.59	0.42
1:2A:903:C:H2'	1:2A:904:C:C6	2.54	0.42
1:2A:1036:G:N2	1:2A:1119:C:O2	2.45	0.42
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.55	0.42
1:2A:1151:G:O2'	15:2U:77:SER:O	2.33	0.42
1:2A:1416:G:N3	1:2A:1417:C:C4	2.88	0.42
1:2A:1652:A:H62	12:2R:11:ASN:ND2	2.18	0.42
1:2A:1815:A:H8	1:2A:1815:A:OP1	2.03	0.42
1:2A:2020:A:O2'	1:2A:2021:C:H2'	2.19	0.42
1:2A:2312:U:O2	6:2G:42:GLY:HA3	2.19	0.42
1:2A:2521:C:O2'	1:2A:2564:A:N3	2.50	0.42
1:2A:2542:A:H4'	1:2A:2543:G:C8	2.55	0.42
1:2A:2884:U:H2'	1:2A:2885:C:O4'	2.20	0.42
3:2D:9:TYR:CE1	3:2D:13:ARG:HG3	2.55	0.42
8:2N:137:LYS:HE3	8:2N:139:GLU:OE2	2.19	0.42
10:2P:2:LYS:N	10:2P:5:ASP:OD2	2.34	0.42
17:2W:59:VAL:O	17:2W:61:ASN:N	2.53	0.42
19:2Y:43:ASN:O	19:2Y:65:ALA:N	2.36	0.42
31:2a:952:U:H4'	31:2a:964:A:N1	2.35	0.42
31:2a:1440:C:C2	31:2a:1462:G:C2	3.08	0.42
32:2b:27:LYS:O	32:2b:194:PRO:HG2	2.20	0.42
33:2c:3:ASN:OD1	33:2c:3:ASN:N	2.53	0.42
45:2o:29:VAL:HG13	45:2o:63:ARG:HG3	2.02	0.42
46:2p:48:TRP:CE3	46:2p:49:LEU:HB2	2.55	0.42
49:2s:51:VAL:HG22	49:2s:71:LEU:HG	2.01	0.42
52:2v:-3:GLU:OE2	52:2v:0:ARG:NH2	2.52	0.42
1:1A:540:C:H2'	1:1A:541:C:C6	2.54	0.42
1:1A:663:G:C6	1:1A:664:C:C4	3.08	0.42
1:1A:736:C:H2'	1:1A:737:C:H6	1.84	0.42
1:1A:862:G:O2'	2:1B:78:A:N3	2.52	0.42
1:1A:1206:G:C6	1:1A:1207:C:C4	3.07	0.42
1:1A:1313:U:C6	1:1A:1610:A:C2	3.07	0.42
1:1A:1342:A:N1	1:1A:1345:C:C2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1786:A:OP1	1:1A:1980:G:N2	2.53	0.42
1:1A:1920:OMC:H2'	1:1A:1921:G:O4'	2.19	0.42
1:1A:1937:A:H1'	1:1A:1939:5MU:C5M	2.50	0.42
1:1A:1995:U:H3'	1:1A:1996:C:H2'	2.02	0.42
1:1A:2360:A:C2	1:1A:2361:A:H1'	2.54	0.42
2:1B:85:G:C6	2:1B:86:G:N7	2.88	0.42
3:1D:50:THR:O	3:1D:51:VAL:HG23	2.20	0.42
5:1F:149:ASP:OD1	5:1F:149:ASP:N	2.42	0.42
8:1N:137:LYS:O	8:1N:138:LEU:HD23	2.20	0.42
9:1O:101:PRO:HD2	14:1T:70:VAL:HG21	2.01	0.42
18:1X:60:ARG:HH12	28:17:47:ARG:NH1	2.18	0.42
19:1Y:66:PRO:O	19:1Y:67:LEU:HD23	2.20	0.42
29:18:62:LEU:HB3	29:18:65:GLU:CG	2.49	0.42
31:1a:142:G:H2'	31:1a:143:A:C8	2.55	0.42
31:1a:442:C:N4	31:1a:492:G:H1	2.17	0.42
31:1a:1065:U:H1'	31:1a:1066:C:OP2	2.20	0.42
31:1a:1259:C:O2	31:1a:1283:G:H1'	2.19	0.42
32:1b:21:ARG:O	32:1b:21:ARG:HG2	2.20	0.42
52:1v:328:ILE:HD12	52:1v:377:VAL:HG12	2.02	0.42
1:2A:11:G:H2'	1:2A:12:U:H5'	2.01	0.42
1:2A:184:C:H1'	1:2A:217:G:H1'	2.02	0.42
1:2A:601:C:O2'	1:2A:605:C:OP1	2.37	0.42
1:2A:705:A:C2	1:2A:727:A:H1'	2.54	0.42
1:2A:1160:G:C6	1:2A:1161:C:C4	3.07	0.42
1:2A:1221:C:H2'	1:2A:1221(A):C:C6	2.55	0.42
1:2A:1470:G:N2	1:2A:1520:G:OP2	2.52	0.42
1:2A:1669:A:H4'	1:2A:2549:G:H5"	2.01	0.42
1:2A:1774:C:H4'	1:2A:1979:C:O2	2.19	0.42
1:2A:2305:A:H1'	6:2G:136:ARG:HB3	2.02	0.42
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.35	0.42
1:2A:2646:C:OP1	1:2A:2765:A:O2'	2.38	0.42
1:2A:2773:C:H2'	1:2A:2774:C:C6	2.54	0.42
3:2D:70:TRP:HA	3:2D:73:VAL:HG23	2.01	0.42
4:2E:110:GLY:O	12:2R:3:HIS:HE1	2.03	0.42
5:2F:126:VAL:HG21	5:2F:129:PHE:CE1	2.55	0.42
7:2H:33:LEU:HD12	7:2H:75:ALA:HA	2.01	0.42
19:2Y:38:ILE:HD11	19:2Y:66:PRO:HG3	2.02	0.42
20:2Z:5:LEU:HD22	20:2Z:6:LYS:H	1.85	0.42
20:2Z:182:LYS:HB3	20:2Z:183:LEU:H	1.68	0.42
31:2a:4:U:O4	38:2h:105:ARG:HG2	2.20	0.42
31:2a:93:G:H2'	31:2a:96:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:2a:126:G:H1	31:2a:235:C:H42	1.66	0.42
31:2a:346:G:H3'	31:2a:346:G:N3	2.34	0.42
31:2a:486:U:H2'	31:2a:487:A:H8	1.85	0.42
31:2a:502:G:C2	31:2a:503:C:C2	3.07	0.42
31:2a:686:U:O4'	41:2k:42:TRP:NE1	2.53	0.42
31:2a:699:C:H2'	31:2a:700:G:C8	2.55	0.42
31:2a:1425:U:O2'	31:2a:1426:C:H5'	2.19	0.42
32:2b:44:LEU:HA	32:2b:47:THR:OG1	2.20	0.42
32:2b:178:ARG:HD3	32:2b:196:LEU:O	2.19	0.42
44:2n:47:LEU:HD22	44:2n:52:GLN:HB2	2.02	0.42
1:1A:24:G:C2	1:1A:517:C:C2	3.08	0.41
1:1A:287:C:H2'	1:1A:288:C:H6	1.84	0.41
1:1A:615:G:O2'	5:1F:205:ARG:NH2	2.53	0.41
1:1A:1059:G:OP2	1:1A:1060:U:H3'	2.20	0.41
1:1A:1355:G:C6	1:1A:1356:G:C5	3.08	0.41
1:1A:1912:A:O2'	31:1a:1495:U:H5'	2.20	0.41
1:1A:2092:U:H4'	1:1A:2093:G:O5'	2.20	0.41
1:1A:2292:C:H2'	1:1A:2293:C:C6	2.55	0.41
1:1A:2313:C:H2'	1:1A:2314:C:H6	1.85	0.41
1:1A:2439:A:N6	1:1A:2585:U:H4'	2.35	0.41
1:1A:2479:G:C6	1:1A:2480:C:C4	3.07	0.41
1:1A:2588:G:O6	1:1A:2607:G:C6	2.72	0.41
3:1D:24:ILE:HA	3:1D:82:ILE:O	2.20	0.41
7:1H:24:VAL:HG11	7:1H:43:VAL:HG21	2.02	0.41
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	2.02	0.41
8:1N:18:ALA:HB1	8:1N:60:ILE:HD13	2.01	0.41
17:1W:10:VAL:HG12	17:1W:12:ILE:HG22	2.02	0.41
19:1Y:51:VAL:HG22	19:1Y:58:GLY:HA3	2.02	0.41
31:1a:57:G:C5	31:1a:58:C:C4	3.08	0.41
31:1a:148:G:H1	31:1a:174:C:H42	1.68	0.41
31:1a:279:A:C5	47:1q:98:LEU:HD23	2.55	0.41
31:1a:450:G:N7	31:1a:481:G:C6	2.88	0.41
31:1a:562:C:O2'	42:1l:16:GLU:O	2.34	0.41
31:1a:607:A:C4	31:1a:608:A:C8	3.08	0.41
32:1b:103:THR:HG23	32:1b:176:GLU:HB3	2.02	0.41
32:1b:196:LEU:HA	32:1b:196:LEU:HD12	1.85	0.41
34:1d:81:GLU:OE1	34:1d:139:ARG:NH2	2.37	0.41
47:1q:88:TYR:HE1	47:1q:92:ARG:NH2	2.18	0.41
54:1x:64:A:H2'	54:1x:65:G:O4'	2.20	0.41
1:2A:66:C:H2'	1:2A:67:U:H6	1.85	0.41
1:2A:92:A:H2'	1:2A:93:G:C8	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:409:C:H2'	1:2A:410:G:C8	2.55	0.41
1:2A:682:G:H5'	28:27:26:GLY:HA3	2.02	0.41
1:2A:1517:G:C5	1:2A:1518:U:C5	3.08	0.41
1:2A:1860:G:O6	1:2A:1883:G:N2	2.53	0.41
1:2A:1963:U:C4	53:2w:131:ASN:HB2	2.55	0.41
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.55	0.41
1:2A:2582:G:C2	1:2A:2583:G:C8	3.08	0.41
1:2A:2594:C:N4	1:2A:2595:G:O6	2.53	0.41
1:2A:2849:U:OP2	14:2T:95:ARG:HD2	2.20	0.41
1:2A:2849:U:OP2	14:2T:95:ARG:NH1	2.53	0.41
5:2F:186:ILE:HD13	5:2F:192:LEU:HD11	2.02	0.41
6:2G:133:LEU:HD11	6:2G:157:ILE:HD12	2.01	0.41
12:2R:96:ARG:HD2	12:2R:115:GLU:OE2	2.20	0.41
27:26:10:LEU:O	27:26:51:GLU:HA	2.20	0.41
31:2a:266:G:H2'	31:2a:266:G:N3	2.35	0.41
31:2a:313:A:H2'	31:2a:314:C:O4'	2.19	0.41
31:2a:486:U:H2'	31:2a:487:A:C8	2.55	0.41
31:2a:660:G:H1	31:2a:745:C:H42	1.68	0.41
31:2a:1059:C:H42	31:2a:1198:G:H1	1.68	0.41
31:2a:1067:A:H2'	31:2a:1093:A:H4'	2.02	0.41
33:2c:182:ILE:HG12	33:2c:203:PHE:HA	2.02	0.41
34:2d:119:GLN:HG2	34:2d:123:HIS:CD2	2.54	0.41
34:2d:173:TRP:CG	34:2d:189:PRO:HG3	2.53	0.41
34:2d:199:ASN:ND2	34:2d:202:LEU:HG	2.35	0.41
41:2k:66:LEU:O	41:2k:70:LYS:HG3	2.19	0.41
42:2l:38:THR:OG1	42:2l:57:LYS:HB2	2.20	0.41
53:2w:16:LYS:O	53:2w:20:VAL:HG23	2.20	0.41
54:2y:55:PSU:N3	54:2y:57:G:H5"	2.34	0.41
1:1A:374:A:C2	1:1A:401:A:C4	3.08	0.41
1:1A:567:A:OP2	10:1P:29:LYS:NZ	2.38	0.41
1:1A:791:C:H4'	1:1A:792:G:OP1	2.20	0.41
1:1A:1127:A:N7	1:1A:2488:A:O2'	2.45	0.41
1:1A:1369:G:N2	1:1A:1370:C:O2	2.53	0.41
1:1A:1849:G:H2'	1:1A:1850:G:H8	1.85	0.41
1:1A:1998:G:C2	1:1A:1999:C:C2	3.08	0.41
1:1A:2118:U:O4	1:1A:2149:G:H1'	2.19	0.41
11:1Q:98:LYS:HB3	11:1Q:98:LYS:HE2	1.79	0.41
14:1T:125:ARG:HA	14:1T:128:GLU:OE2	2.20	0.41
17:1W:78:GLU:OE2	17:1W:99:ARG:HD3	2.20	0.41
19:1Y:9:LYS:HA	19:1Y:10:GLY:HA2	1.68	0.41
27:16:38:LYS:HE3	27:16:38:LYS:HB3	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:592:G:H2'	31:1a:593:G:H8	1.84	0.41
31:1a:627:G:H2'	31:1a:628:G:H8	1.86	0.41
31:1a:950:U:H2'	31:1a:951:G:H8	1.85	0.41
31:1a:1010:G:N2	31:1a:1020:U:H1'	2.34	0.41
31:1a:1412:C:H2'	31:1a:1413:A:H8	1.84	0.41
37:1g:47:CYS:O	37:1g:50:ILE:HG22	2.20	0.41
41:1k:59:TYR:O	41:1k:62:GLN:HB3	2.20	0.41
49:1s:45:VAL:HG13	49:1s:63:THR:O	2.20	0.41
52:1v:470:PHE:O	52:1v:472:VAL:N	2.49	0.41
53:1w:139:LYS:O	53:1w:143:LEU:HB2	2.20	0.41
53:1w:150:SER:HB3	53:1w:153:GLU:HG2	2.02	0.41
54:1y:24:G:H2'	54:1y:25:C:C6	2.55	0.41
1:2A:38:A:H2'	1:2A:39:C:C6	2.56	0.41
1:2A:210:C:H2'	1:2A:211:A:H8	1.84	0.41
1:2A:287:C:H2'	1:2A:288:C:C6	2.55	0.41
1:2A:632:A:H2'	1:2A:633:A:C8	2.55	0.41
1:2A:657:U:H2'	1:2A:658:C:C6	2.54	0.41
1:2A:840:C:P	1:2A:932:G:H22	2.42	0.41
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.20	0.41
1:2A:1352:U:O2'	1:2A:1570:A:N3	2.41	0.41
1:2A:1557:C:H5"	1:2A:1558:A:OP2	2.20	0.41
1:2A:1906:G:N2	1:2A:1925:C:C2	2.88	0.41
1:2A:2291:U:OP2	1:2A:2291:U:H5	2.03	0.41
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.20	0.41
2:2B:30:C:OP2	13:2S:32:LEU:HD11	2.20	0.41
2:2B:43:C:H5"	25:24:1:MET:HG2	2.02	0.41
11:2Q:42:ILE:HD13	11:2Q:97:VAL:HB	2.01	0.41
12:2R:51:LEU:HD22	12:2R:66:VAL:HG13	2.01	0.41
13:2S:26:LEU:HD22	13:2S:87:PHE:CE1	2.54	0.41
16:2V:24:LYS:HA	16:2V:92:THR:OG1	2.20	0.41
17:2W:80:PRO:O	17:2W:100:THR:HB	2.20	0.41
31:2a:971:G:OP2	31:2a:1231:G:N2	2.49	0.41
33:2c:120:VAL:HB	33:2c:198:VAL:HG11	2.02	0.41
36:2f:60:PHE:HE2	48:2r:78:LEU:HD21	1.83	0.41
39:2i:105:ASP:O	39:2i:107:ARG:N	2.53	0.41
41:2k:73:MET:HG2	41:2k:77:MET:O	2.20	0.41
43:2m:16:ASP:HB3	43:2m:34:LEU:HD11	2.02	0.41
52:2v:276:VAL:HG13	52:2v:280:LEU:HD12	2.02	0.41
1:1A:184:C:O2'	1:1A:217:G:N3	2.47	0.41
1:1A:539:G:H2'	1:1A:540:C:C6	2.55	0.41
1:1A:738:G:H1'	1:1A:759:G:N2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:868:U:C4	1:1A:869:G:N7	2.89	0.41
1:1A:948:G:C2	1:1A:970:C:O2	2.74	0.41
1:1A:1126:A:H4'	1:1A:1127:A:O5'	2.20	0.41
1:1A:1178:C:O5'	1:1A:1178:C:H6	2.03	0.41
1:1A:1427:A:H8	1:1A:1427:A:OP1	2.03	0.41
1:1A:1665:A:C2'	1:1A:1666:G:H5'	2.51	0.41
1:1A:2223:G:H2'	1:1A:2224:G:O4'	2.20	0.41
1:1A:2314:C:H5"	6:1G:38:VAL:HG21	2.03	0.41
1:1A:2492:U:C2	1:1A:2493:U:C5	3.09	0.41
1:1A:2690:C:OP1	12:1R:17:ARG:NH2	2.53	0.41
6:1G:106:LEU:HG	6:1G:107:LEU:HD23	2.02	0.41
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.69	0.41
11:1Q:125:LEU:HA	11:1Q:125:LEU:HD23	1.69	0.41
21:10:18:ALA:HB3	21:10:20:ARG:HH12	1.85	0.41
31:1a:461:A:O2'	31:1a:470:C:H5'	2.20	0.41
31:1a:673:G:H2'	31:1a:674:G:C8	2.55	0.41
31:1a:767:A:H2'	31:1a:768:A:C8	2.55	0.41
31:1a:1162:C:N4	31:1a:1174:G:H1	2.15	0.41
31:1a:1347:G:H22	31:1a:1374:A:P	2.44	0.41
33:1c:61:ALA:N	33:1c:63:ASN:OD1	2.51	0.41
38:1h:104:ARG:NH2	38:1h:138:TRP:CE2	2.89	0.41
39:1i:32:ASP:OD1	39:1i:33:PHE:N	2.53	0.41
43:1m:18:ALA:HA	43:1m:21:TYR:CD2	2.55	0.41
52:1v:-64:VAL:HA	52:1v:-29:LEU:HA	2.02	0.41
52:1v:188:TYR:CE1	52:1v:267:LYS:HA	2.54	0.41
53:1w:92:PRO:HB3	53:1w:101:ILE:HD13	2.02	0.41
1:2A:272(B):G:H2'	1:2A:272(C):G:C8	2.55	0.41
1:2A:718:A:H3'	1:2A:719:C:H6	1.85	0.41
1:2A:2191:G:H2'	1:2A:2192:G:O4'	2.20	0.41
1:2A:2728:U:H5'	9:2O:70:LYS:NZ	2.34	0.41
3:2D:44:ASN:HD21	3:2D:46:GLN:HB2	1.86	0.41
26:25:41:PRO:HD2	26:25:44:THR:HG21	2.03	0.41
31:2a:577:G:H1'	31:2a:816:A:N3	2.35	0.41
31:2a:585:G:O2'	31:2a:879:C:H5"	2.20	0.41
31:2a:641:U:H1'	31:2a:642:A:N7	2.35	0.41
32:2b:27:LYS:HB2	32:2b:194:PRO:HD2	2.02	0.41
32:2b:212:GLN:NE2	32:2b:235:SER:HA	2.35	0.41
39:2i:125:TYR:OH	39:2i:127:LYS:HD3	2.20	0.41
52:2v:20:HIS:HD2	52:2v:21:ILE:O	2.02	0.41
52:2v:82:ILE:HB	52:2v:101:LEU:HD21	2.03	0.41
52:2v:187:THR:HG22	52:2v:197:ARG:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:117:G:C6	1:1A:119:A:C6	3.09	0.41
1:1A:447:A:C4	1:1A:473:G:C8	3.08	0.41
1:1A:542:C:O2'	1:1A:543:C:H5'	2.20	0.41
1:1A:874:G:N2	1:1A:904:C:C2	2.89	0.41
1:1A:1027:A:N6	1:1A:1126:A:C4	2.89	0.41
1:1A:1070:A:N7	1:1A:1096:A:O2'	2.35	0.41
1:1A:1268:A:C2	1:1A:1269:A:H1'	2.55	0.41
1:1A:1364:G:C8	22:11:3:LYS:HD2	2.55	0.41
1:1A:1436:G:H1	1:1A:1556:C:N4	2.16	0.41
1:1A:1600:C:O2'	1:1A:1601:G:H5'	2.21	0.41
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.20	0.41
1:1A:2112:G:H1'	54:1y:19:G:O2'	2.20	0.41
1:1A:2513:G:C2	1:1A:2514:U:C2	3.08	0.41
1:1A:2592:G:H2'	1:1A:2593:U:O4'	2.21	0.41
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.20	0.41
6:1G:60:LEU:HD12	6:1G:60:LEU:HA	1.89	0.41
10:1P:49:ARG:HB3	29:18:61:LEU:HD21	2.01	0.41
14:1T:51:ARG:HG3	14:1T:98:LYS:HD2	2.01	0.41
15:1U:61:TRP:CD2	15:1U:93:LYS:HA	2.56	0.41
18:1X:44:GLU:C	18:1X:46:ALA:H	2.29	0.41
19:1Y:14:LEU:HD12	19:1Y:23:ARG:O	2.20	0.41
24:13:8:LEU:HG	24:13:31:LEU:HD23	2.01	0.41
31:1a:584:G:H1	31:1a:757:U:H3	1.69	0.41
31:1a:675:A:O2'	41:1k:114:VAL:O	2.37	0.41
31:1a:779:C:HO2'	41:1k:120:ARG:HH11	1.64	0.41
31:1a:1370:G:H5'	39:1i:12:GLU:HG3	2.01	0.41
33:1c:30:ARG:HD2	44:1n:35:ARG:O	2.20	0.41
34:1d:160:GLN:H	34:1d:160:GLN:HG3	1.71	0.41
35:1e:73:ASN:O	35:1e:73:ASN:ND2	2.54	0.41
41:1k:20:TYR:CZ	41:1k:83:ILE:HD12	2.55	0.41
52:1v:682:GLN:H	52:1v:682:GLN:HG2	1.63	0.41
53:1w:29:ARG:HH22	53:1w:110:ARG:CZ	2.34	0.41
53:1w:62:ASP:N	53:1w:62:ASP:OD1	2.52	0.41
53:1w:99:LEU:HD12	53:1w:99:LEU:N	2.35	0.41
1:2A:29:U:C4'	15:2U:11:ARG:HH22	2.31	0.41
1:2A:233:A:H61	1:2A:428:A:N6	2.18	0.41
1:2A:495:G:H5"	17:2W:4:LYS:HE2	2.03	0.41
1:2A:530:G:C5	1:2A:2022:U:H5"	2.56	0.41
1:2A:571:A:H1'	1:2A:573:G:C8	2.56	0.41
1:2A:721:C:H2'	1:2A:722:A:C8	2.55	0.41
1:2A:2292:C:H2'	1:2A:2293:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2439:A:H5"	1:2A:2441:C:P	2.60	0.41
4:2E:11:MET:HB3	4:2E:11:MET:HE2	1.63	0.41
13:2S:90:GLY:C	13:2S:92:TYR:H	2.28	0.41
14:2T:16:ARG:HH12	14:2T:83:ILE:HB	1.86	0.41
15:2U:19:LYS:HA	15:2U:22:LYS:HG3	2.03	0.41
23:22:35:LEU:HD23	23:22:35:LEU:HA	1.82	0.41
31:2a:291:C:H2'	31:2a:292:G:C8	2.56	0.41
31:2a:665:A:N7	31:2a:725:G:N1	2.67	0.41
31:2a:685:G:H2'	31:2a:686:U:C6	2.55	0.41
31:2a:957:U:H2'	31:2a:959:A:OP2	2.20	0.41
37:2g:79:ARG:H	37:2g:79:ARG:HG3	1.68	0.41
38:2h:83:ILE:HA	38:2h:136:GLU:O	2.19	0.41
42:2l:42:THR:OG1	53:2w:84:ARG:HD2	2.20	0.41
42:2l:117:ARG:HD2	42:2l:122:THR:HG22	2.02	0.41
45:2o:21:ASP:OD2	45:2o:24:SER:HB3	2.20	0.41
50:2t:67:ALA:HB2	50:2t:77:ALA:HB2	2.02	0.41
52:2v:517:LEU:HD12	52:2v:517:LEU:HA	1.94	0.41
52:2v:523:PHE:CD1	52:2v:550:MET:HE1	2.55	0.41
54:2x:69:G:H2'	54:2x:70:G:H4'	2.02	0.41
1:1A:449:A:H2'	1:1A:450:G:O4'	2.21	0.41
1:1A:479:A:N1	1:1A:506:G:N2	2.68	0.41
1:1A:1445(A):C:H2'	1:1A:1446:C:H6	1.84	0.41
1:1A:1799:G:O6	3:1D:178:PRO:HD2	2.20	0.41
1:1A:2313:C:H4'	6:1G:91:ARG:HG3	2.03	0.41
1:1A:2354:G:H2'	1:1A:2355:C:C6	2.55	0.41
1:1A:2886:G:N2	1:1A:2887:U:C2	2.89	0.41
2:1B:4:C:H2'	2:1B:5:C:O4'	2.21	0.41
2:1B:42:C:C4	6:1G:91:ARG:NH2	2.89	0.41
4:1E:163:GLU:H	4:1E:163:GLU:HG2	1.63	0.41
8:1N:104:LYS:HD2	8:1N:117:PHE:CE1	2.56	0.41
9:1O:87:ILE:HA	9:1O:93:PRO:HA	2.03	0.41
22:11:69:LYS:HA	22:11:69:LYS:HD2	1.71	0.41
31:1a:280:C:C2	47:1q:38:ARG:HA	2.55	0.41
31:1a:303:A:H2'	31:1a:304:U:O4'	2.21	0.41
31:1a:521:G:O5'	42:1l:73:GLU:HG2	2.21	0.41
31:1a:544:G:OP1	34:1d:59:ARG:NH1	2.41	0.41
31:1a:691:G:H2'	31:1a:692:U:C6	2.55	0.41
31:1a:1005:A:H1'	31:1a:1036:G:O6	2.20	0.41
34:1d:149:ALA:HB3	34:1d:152:SER:HB2	2.02	0.41
36:1f:19:LEU:HD11	36:1f:59:TYR:CE1	2.55	0.41
38:1h:20:TYR:HA	38:1h:65:TYR:OH	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1l:28:LYS:HD3	42:1l:28:LYS:HA	1.83	0.41
54:1x:30:G:H1	54:1x:40:C:H42	1.67	0.41
54:1y:34:G:N1	55:1z:14:A:N6	2.66	0.41
1:2A:934:G:H2'	1:2A:935:C:C6	2.56	0.41
1:2A:1265:A:H3'	26:25:19:ARG:HH21	1.86	0.41
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.56	0.41
1:2A:1422:G:H1'	1:2A:1495:A:H61	1.84	0.41
1:2A:1530:C:H6	1:2A:1530:C:H2'	1.65	0.41
1:2A:1555:G:C2	1:2A:1556:C:C6	3.09	0.41
1:2A:1613:G:HO2'	28:27:3:ARG:HE	1.65	0.41
1:2A:1711:C:H2'	1:2A:1712:C:H6	1.85	0.41
1:2A:1938:A:C6	1:2A:2590:A:H1'	2.55	0.41
1:2A:2465:C:O2	1:2A:2486:G:C2	2.74	0.41
1:2A:2668:G:H2'	1:2A:2669:G:H8	1.86	0.41
6:2G:115:ARG:NH1	6:2G:115:ARG:HB2	2.35	0.41
7:2H:27:LYS:NZ	7:2H:32:GLU:OE1	2.36	0.41
17:2W:90:ARG:HA	17:2W:90:ARG:HD2	1.94	0.41
31:2a:559:A:OP2	35:2e:126:ARG:NH2	2.54	0.41
31:2a:607:A:H2'	31:2a:608:A:O4'	2.21	0.41
31:2a:878:G:H2'	31:2a:879:C:C6	2.55	0.41
31:2a:975:A:H4'	31:2a:976:G:H5"	2.02	0.41
31:2a:1288:A:N1	31:2a:1371:G:H1'	2.35	0.41
33:2c:132:ARG:HG2	33:2c:136:GLN:HG3	2.01	0.41
37:2g:59:LEU:HG	37:2g:63:LYS:HE2	2.01	0.41
43:2m:67:GLU:HB3	43:2m:68:GLY:H	1.69	0.41
47:2q:38:ARG:HD3	47:2q:38:ARG:HA	1.89	0.41
49:2s:41:VAL:HG12	49:2s:43:GLU:H	1.85	0.41
52:2v:-53:ASP:OD1	52:2v:-52:VAL:HG12	2.21	0.41
52:2v:-42:TYR:O	52:2v:-37:LEU:HG	2.21	0.41
1:1A:306:U:H2'	1:1A:307:G:O4'	2.21	0.41
1:1A:442:G:C6	1:1A:444:C:N4	2.89	0.41
1:1A:1031:G:H5"	30:19:8:LYS:HE3	2.02	0.41
1:1A:1074:G:C2	1:1A:1075:C:H1'	2.55	0.41
1:1A:1271:G:O3'	1:1A:1272:A:H4'	2.20	0.41
1:1A:2016:U:C4	1:1A:2017:U:C4	3.09	0.41
1:1A:2115:G:O2'	1:1A:2167:U:O4	2.38	0.41
1:1A:2251:OMG:C6	1:1A:2252:G:C6	3.09	0.41
1:1A:2495:G:H5"	11:1Q:81:VAL:O	2.20	0.41
1:1A:2780:G:OP2	8:1N:118:LYS:HD3	2.21	0.41
1:1A:2850:A:N7	1:1A:2868:A:O2'	2.50	0.41
8:1N:32:THR:O	8:1N:36:GLY:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1O:64:ARG:O	9:1O:82:ASN:HA	2.20	0.41
9:1O:104:ARG:HH22	14:1T:43:GLN:HE22	1.68	0.41
11:1Q:38:GLU:HG3	11:1Q:127:ILE:HG22	2.02	0.41
14:1T:107:ASP:O	14:1T:111:ARG:HG3	2.20	0.41
20:1Z:10:ARG:HG2	20:1Z:36:LYS:C	2.45	0.41
20:1Z:102:LEU:HD11	20:1Z:124:ILE:HG22	2.03	0.41
20:1Z:144:LEU:HD21	20:1Z:150:LEU:HD13	2.03	0.41
31:1a:688:G:O2'	31:1a:704:A:N1	2.42	0.41
31:1a:1147:C:H2'	31:1a:1148:U:C6	2.56	0.41
31:1a:1155:G:H2'	31:1a:1156:G:O4'	2.20	0.41
35:1e:53:LEU:HA	35:1e:56:GLN:HE21	1.86	0.41
42:1l:7:ILE:O	42:1l:11:VAL:HG23	2.20	0.41
53:1w:43:VAL:HG12	53:1w:44:GLU:H	1.86	0.41
1:2A:568:U:C6	1:2A:568:U:C4'	3.04	0.41
1:2A:1671:U:H2'	1:2A:1673:U:OP2	2.21	0.41
1:2A:1912:A:H8	1:2A:1912:A:OP2	2.04	0.41
1:2A:2678:C:H2'	1:2A:2679:A:O4'	2.21	0.41
1:2A:2740:A:H2'	1:2A:2741:A:C8	2.55	0.41
1:2A:2820:A:OP2	12:2R:2:ARG:NH2	2.54	0.41
2:2B:48:A:H2'	2:2B:49:C:C6	2.56	0.41
5:2F:9:ILE:HD12	5:2F:22:ALA:HB3	2.01	0.41
12:2R:37:THR:OG1	12:2R:39:PRO:HD2	2.20	0.41
31:2a:277:C:H2'	31:2a:278:G:H8	1.85	0.41
31:2a:435:C:H2'	31:2a:436:C:H6	1.86	0.41
31:2a:454:C:H3'	31:2a:455:C:H6	1.86	0.41
31:2a:604:G:H2'	31:2a:605:U:O4'	2.21	0.41
31:2a:950:U:H2'	31:2a:951:G:C8	2.56	0.41
31:2a:1157:A:H5'	31:2a:1158:C:C6	2.54	0.41
34:2d:124:GLY:HA3	34:2d:132:ARG:HD2	2.02	0.41
53:2w:114:LEU:HB2	53:2w:183:ILE:HG21	2.02	0.41
1:1A:45:C:OP2	1:1A:215:G:H2'	2.20	0.41
1:1A:181:A:H5"	28:17:36:GLN:NE2	2.35	0.41
1:1A:310:A:O2'	1:1A:311:A:OP2	2.27	0.41
1:1A:315:G:H2'	1:1A:316:C:H6	1.85	0.41
1:1A:465:G:C2	1:1A:466:A:C2	3.09	0.41
1:1A:855:G:H1	1:1A:922:U:H3	1.67	0.41
1:1A:1368:G:C2	1:1A:1369:G:N7	2.89	0.41
1:1A:1766:U:O2'	1:1A:1767:C:H5'	2.20	0.41
1:1A:2302:G:H2'	1:1A:2303:G:C8	2.55	0.41
1:1A:2705:A:H2'	1:1A:2706:G:O4'	2.21	0.41
1:1A:2840:C:H2'	1:1A:2841:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:161:GLU:O	5:1F:165:ARG:HG3	2.20	0.41
6:1G:11:TYR:HA	6:1G:15:VAL:HB	2.03	0.41
6:1G:40:ASN:N	6:1G:156:ASP:O	2.47	0.41
18:1X:29:TRP:CE3	18:1X:78:LYS:HB3	2.55	0.41
31:1a:401:C:P	34:1d:73:ARG:HH21	2.42	0.41
31:1a:627:G:H2'	31:1a:628:G:C8	2.56	0.41
32:1b:71:VAL:N	32:1b:163:PHE:O	2.51	0.41
35:1e:78:HIS:HE1	35:1e:142:LEU:HA	1.85	0.41
43:1m:97:PRO:HB2	43:1m:101:GLN:HB2	2.02	0.41
46:1p:60:LEU:HA	46:1p:60:LEU:HD12	1.75	0.41
52:1v:-58:LEU:HD13	52:1v:-58:LEU:HA	1.96	0.41
52:1v:344:THR:HB	52:1v:388:THR:OG1	2.20	0.41
54:1y:19:G:H5"	54:1y:60:U:O4	2.20	0.41
54:1y:37:MIA:H2'	54:1y:38:A:C8	2.55	0.41
54:1y:50:U:H3	54:1y:64:A:H2	1.66	0.41
55:1z:13:A:N3	55:1z:13:A:C2'	2.78	0.41
1:2A:152:G:C2	1:2A:153:C:C2	3.09	0.41
1:2A:271(V):G:H2'	1:2A:271(W):G:O4'	2.21	0.41
1:2A:685:A:OP1	1:2A:685:A:H3'	2.21	0.41
1:2A:764:A:C6	1:2A:781:A:C2	3.08	0.41
1:2A:768:G:C6	1:2A:769:G:C5	3.09	0.41
1:2A:842:G:H1	1:2A:936:C:H42	1.68	0.41
1:2A:1278:A:H4'	12:2R:34:ILE:HD12	2.02	0.41
1:2A:2197:U:H1'	1:2A:2198:A:C8	2.55	0.41
1:2A:2416:C:O5'	1:2A:2416:C:H6	2.04	0.41
1:2A:2839:G:C5'	12:2R:46:GLY:HA2	2.50	0.41
2:2B:97:G:H2'	2:2B:98:G:O4'	2.21	0.41
2:2B:103:G:O2'	20:2Z:73:GLN:NE2	2.53	0.41
3:2D:66:ASP:HB3	3:2D:105:ILE:HG22	2.02	0.41
3:2D:242:ARG:C	3:2D:244:ARG:H	2.29	0.41
6:2G:79:ASN:OD1	6:2G:79:ASN:N	2.54	0.41
7:2H:46:GLU:O	7:2H:48:GLY:N	2.50	0.41
10:2P:87:ASP:OD1	10:2P:87:ASP:N	2.53	0.41
19:2Y:76:CYS:HA	19:2Y:106:LEU:HD22	2.02	0.41
31:2a:166:G:H2'	31:2a:167:G:H8	1.86	0.41
31:2a:190:U:H2'	31:2a:191:G:O4'	2.20	0.41
31:2a:253:U:H2'	31:2a:254:G:H8	1.84	0.41
31:2a:596:C:H2'	31:2a:597:G:C8	2.55	0.41
31:2a:938:A:N6	31:2a:939:G:C6	2.88	0.41
31:2a:1013:G:H2'	31:2a:1015:A:OP2	2.21	0.41
36:2f:87:ARG:HD3	36:2f:87:ARG:HA	1.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:2s:3:ARG:NH1	49:2s:8:GLY:O	2.41	0.41
52:2v:9:LEU:HD22	52:2v:284:LEU:HD13	2.02	0.41
52:2v:550:MET:SD	52:2v:563:ILE:HD11	2.61	0.41
53:2w:154:THR:O	53:2w:158:GLU:HG3	2.20	0.41
1:1A:483:A:H4'	19:1Y:50:ARG:HA	2.02	0.41
1:1A:556:G:C6	1:1A:557:U:C4	3.09	0.41
1:1A:652(A):A:N3	1:1A:652(A):A:H2'	2.35	0.41
1:1A:910:A:C6	1:1A:911:A:C6	3.09	0.41
1:1A:974:G:O4'	1:1A:1186:G:N2	2.53	0.41
1:1A:1279:G:H4'	12:1R:31:HIS:CD2	2.56	0.41
1:1A:1327:C:C4	1:1A:1328:G:C6	3.09	0.41
1:1A:1479:G:H5"	1:1A:1560:G:H4'	2.03	0.41
1:1A:2112:G:H8	1:1A:2112:G:O5'	2.03	0.41
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.56	0.41
1:1A:2645:G:H4'	1:1A:2732:G:O3'	2.21	0.41
1:1A:2886:G:H2'	1:1A:2887:U:C6	2.55	0.41
2:1B:43:C:H5"	25:14:1:MET:HG2	2.02	0.41
3:1D:98:VAL:C	3:1D:100:GLY:N	2.78	0.41
4:1E:56:PRO:C	4:1E:58:ARG:H	2.29	0.41
8:1N:73:THR:HA	8:1N:83:LYS:O	2.21	0.41
9:1O:105:GLU:O	9:1O:109:LYS:HG2	2.20	0.41
23:12:15:LYS:C	23:12:16:LEU:HD23	2.46	0.41
23:12:36:ARG:O	23:12:40:SER:HB3	2.21	0.41
31:1a:264:U:O2	47:1q:64:PRO:HG2	2.21	0.41
31:1a:680:C:H2'	31:1a:681:C:C6	2.56	0.41
36:1f:19:LEU:HD21	36:1f:59:TYR:CZ	2.56	0.41
37:1g:31:MET:HA	37:1g:39:ALA:HB2	2.03	0.41
42:1l:6:THR:HG23	42:1l:9:GLN:OE1	2.21	0.41
52:1v:20:HIS:ND1	52:1v:115:GLU:HB3	2.36	0.41
52:1v:228:MET:HE2	52:1v:228:MET:HB2	1.87	0.41
52:1v:232:LEU:HD13	52:1v:232:LEU:HA	1.91	0.41
54:1x:34:G:N3	54:1x:34:G:H2'	2.36	0.41
1:2A:562:U:H6	1:2A:562:U:H2'	1.66	0.41
1:2A:1418:G:H8	1:2A:1418:G:O5'	2.03	0.41
1:2A:1479:G:H1'	1:2A:1558:A:OP1	2.21	0.41
1:2A:1607:C:H4'	1:2A:1608:A:O5'	2.21	0.41
1:2A:1614:A:H61	17:2W:88:ARG:H	1.68	0.41
1:2A:1693:U:O2'	1:2A:1695:G:O6	2.28	0.41
1:2A:2087:G:C6	1:2A:2233:U:C2	3.09	0.41
1:2A:2592:G:C6	1:2A:2593:U:C4	3.09	0.41
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:144:ARG:C	4:2E:146:THR:H	2.29	0.41
5:2F:149:ASP:OD1	5:2F:149:ASP:N	2.54	0.41
10:2P:81:GLN:NE2	10:2P:105:LEU:O	2.53	0.41
10:2P:90:ARG:HG3	10:2P:91:PHE:N	2.36	0.41
11:2Q:6:ARG:HE	20:2Z:195:GLU:CB	2.32	0.41
13:2S:35:ILE:HB	13:2S:97:ARG:HH21	1.85	0.41
15:2U:65:ILE:HD11	15:2U:95:LEU:HB3	2.03	0.41
16:2V:49:THR:HA	16:2V:50:PRO:HA	1.87	0.41
17:2W:20:VAL:O	17:2W:23:LEU:HB2	2.21	0.41
18:2X:9:LEU:HA	23:22:36:ARG:HH21	1.86	0.41
19:2Y:10:GLY:HA2	19:2Y:27:VAL:HB	2.03	0.41
20:2Z:14:LYS:HE2	20:2Z:14:LYS:HB2	1.85	0.41
31:2a:22:G:H2'	31:2a:23:C:C6	2.55	0.41
31:2a:189(D):C:C4	31:2a:189(E):U:N3	2.89	0.41
31:2a:1075:C:HO2'	32:2b:175:ARG:HH22	1.67	0.41
31:2a:1107:C:H5"	33:2c:173:VAL:H	1.85	0.41
35:2e:103:GLY:C	35:2e:106:PRO:HD2	2.46	0.41
41:2k:62:GLN:O	41:2k:66:LEU:HG	2.20	0.41
49:2s:50:ALA:HB1	49:2s:57:HIS:HB3	2.03	0.41
52:2v:227:ILE:HD11	52:2v:241:GLU:O	2.21	0.41
52:2v:674:ASP:HB3	52:2v:675:HIS:CD2	2.56	0.41
1:1A:98:G:H5"	23:12:3:LEU:HD11	2.03	0.41
1:1A:180:G:H5"	1:1A:181:A:OP1	2.21	0.41
1:1A:302:C:H2'	1:1A:303:U:H6	1.85	0.41
1:1A:533:G:N2	1:1A:561:G:N3	2.69	0.41
1:1A:604:G:C6	1:1A:625:G:C2	3.09	0.41
1:1A:747:U:C4	1:1A:2613:U:C4	3.09	0.41
1:1A:775:G:C5	1:1A:794:G:C8	3.08	0.41
1:1A:805:G:OP2	1:1A:806:C:N4	2.51	0.41
1:1A:902:C:H2'	1:1A:903:C:H6	1.85	0.41
1:1A:1027:A:C6	1:1A:1126:A:C5	3.09	0.41
1:1A:1288:U:O3'	1:1A:1647:G:N2	2.45	0.41
1:1A:1453:U:P	12:1R:77:ARG:HH11	2.44	0.41
1:1A:1510:G:H2'	1:1A:1511:C:C6	2.55	0.41
1:1A:1640:C:H2'	1:1A:1641:A:C8	2.56	0.41
1:1A:1754:C:N4	1:1A:1755:A:N6	2.69	0.41
1:1A:1765:C:H2'	1:1A:1766:U:H6	1.83	0.41
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.20	0.41
1:1A:1955:U:O4	1:1A:2554:U:H5	2.04	0.41
1:1A:2019:A:C6	1:1A:2020:A:N7	2.89	0.41
1:1A:2077:A:C8	1:1A:2435:A:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2280:G:C2	1:1A:2281:C:C6	3.09	0.41
1:1A:2336:A:H8	1:1A:2336:A:OP1	2.03	0.41
1:1A:2393:A:O3'	10:1P:63:PRO:HA	2.21	0.41
1:1A:2462:U:H2'	1:1A:2463:C:C6	2.56	0.41
1:1A:2470:G:C2	1:1A:2471:C:C6	3.09	0.41
1:1A:2591:C:P	3:1D:239:ARG:HB2	2.61	0.41
1:1A:2843:G:H1	1:1A:2874:C:N4	2.19	0.41
4:1E:9:VAL:CG2	4:1E:25:VAL:HB	2.51	0.41
5:1F:152:GLU:OE1	5:1F:191:ARG:HD2	2.20	0.41
6:1G:83:ARG:HH21	54:1x:58:A:P	2.43	0.41
17:1W:1:MET:HG3	17:1W:64:MET:SD	2.60	0.41
18:1X:27:THR:HG23	18:1X:80:ILE:HG12	2.02	0.41
20:1Z:11:GLU:HA	20:1Z:36:LYS:HE3	2.03	0.41
31:1a:165:C:H2'	31:1a:166:G:C8	2.55	0.41
31:1a:323:U:H2'	31:1a:324:G:O4'	2.20	0.41
31:1a:693:G:C5	31:1a:694:A:C5	3.08	0.41
31:1a:794:A:H2'	31:1a:795:C:H6	1.86	0.41
31:1a:918:A:H2'	31:1a:919:A:C8	2.56	0.41
31:1a:943:U:H1'	39:1i:124:GLN:HE22	1.86	0.41
31:1a:951:G:N3	31:1a:970:C:O2'	2.37	0.41
31:1a:983:A:H2	31:1a:984:C:C5	2.38	0.41
31:1a:1413:A:C6	31:1a:1414:U:C4	3.09	0.41
32:1b:47:THR:O	32:1b:51:LEU:HG	2.20	0.41
33:1c:9:GLY:O	44:1n:58:LYS:HD3	2.21	0.41
36:1f:17:SER:O	36:1f:21:LEU:HG	2.21	0.41
38:1h:31:PHE:CE2	38:1h:35:ILE:HD11	2.56	0.41
42:1l:7:ILE:H	42:1l:7:ILE:HG12	1.72	0.41
42:1l:79:GLU:HG2	42:1l:80:HIS:CE1	2.55	0.41
45:1o:15:PHE:HE1	45:1o:84:LYS:HG2	1.86	0.41
49:1s:40:ILE:HD12	49:1s:66:MET:O	2.21	0.41
50:1t:9:ASN:N	50:1t:9:ASN:OD1	2.54	0.41
52:1v:96:ARG:H	52:1v:96:ARG:HG3	1.54	0.41
52:1v:325:LEU:HD23	52:1v:325:LEU:HA	1.95	0.41
52:1v:395:PRO:O	52:1v:397:VAL:HG22	2.21	0.41
52:1v:491:VAL:HG22	52:1v:597:GLY:HA3	2.01	0.41
52:1v:549:ALA:HA	52:1v:591:LYS:HE2	2.03	0.41
52:1v:644:ARG:HH11	52:1v:644:ARG:HB2	1.86	0.41
52:1v:660:ARG:NH1	52:1v:667:GLY:O	2.53	0.41
54:1y:44:G:O2'	54:1y:45:U:OP1	2.32	0.41
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.56	0.41
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:601:C:OP1	5:2F:108:LYS:HE3	2.21	0.41
1:2A:614(C):A:N3	1:2A:615:G:H1'	2.36	0.41
1:2A:675:A:N3	1:2A:2443:C:O2'	2.50	0.41
1:2A:686:G:N2	1:2A:788:A:H61	2.19	0.41
1:2A:690:G:H2'	1:2A:691:C:C6	2.56	0.41
1:2A:1190:G:O2'	1:2A:1191:G:H5'	2.21	0.41
1:2A:1262:A:P	17:2W:99:ARG:HH22	2.44	0.41
1:2A:1277:G:O2'	12:2R:24:GLN:HG2	2.21	0.41
1:2A:1526:G:H2'	1:2A:1527:G:O4'	2.20	0.41
1:2A:1600:C:H2'	1:2A:1601:G:H8	1.86	0.41
1:2A:1789:A:OP1	3:2D:222:ARG:HG3	2.20	0.41
1:2A:1821:A:H2'	1:2A:1822:G:C8	2.56	0.41
1:2A:1821:A:H2'	1:2A:1822:G:H8	1.85	0.41
1:2A:1832:C:H2'	1:2A:1833:U:O4'	2.19	0.41
1:2A:1963:U:N3	53:2w:127:VAL:HG22	2.28	0.41
1:2A:2025:C:H2'	1:2A:2026:C:C6	2.56	0.41
1:2A:2129:C:N4	1:2A:2159:G:H1	2.18	0.41
1:2A:2262:U:H2'	1:2A:2263:C:H6	1.85	0.41
1:2A:2564:A:OP1	1:2A:2648:C:O2'	2.24	0.41
2:2B:80:U:H2'	2:2B:81:G:H8	1.84	0.41
6:2G:62:LEU:HB3	6:2G:143:GLU:HB3	2.01	0.41
15:2U:31:SER:HB3	15:2U:34:LYS:HB2	2.03	0.41
17:2W:19:LEU:HB3	26:25:25:LEU:HD12	2.03	0.41
26:25:33:CYS:N	26:25:38:ALA:O	2.50	0.41
31:2a:143:A:O3'	31:2a:144:G:H8	2.03	0.41
31:2a:245:C:C2	31:2a:284:G:C2	3.09	0.41
31:2a:373:A:N1	31:2a:391:G:O2'	2.39	0.41
31:2a:631:G:H2'	31:2a:632:A:C8	2.56	0.41
31:2a:815:A:N7	31:2a:1509:C:O2'	2.54	0.41
31:2a:830:G:H2'	31:2a:831:U:O4'	2.21	0.41
31:2a:837:G:N2	31:2a:850:U:O2	2.54	0.41
31:2a:1074:G:H1'	32:2b:104:ASN:HB2	2.03	0.41
31:2a:1169:A:H2'	31:2a:1170:A:C8	2.56	0.41
31:2a:1171:G:H2'	31:2a:1172:C:C6	2.56	0.41
31:2a:1274:G:H2'	31:2a:1275:A:H5"	2.02	0.41
31:2a:1280:A:O2'	31:2a:1281:U:H5'	2.20	0.41
31:2a:1318:A:N6	44:2n:18:VAL:HG21	2.36	0.41
31:2a:1370:G:C8	39:2i:109:VAL:HG11	2.56	0.41
33:2c:136:GLN:HB3	33:2c:140:ARG:HH12	1.86	0.41
35:2e:138:ALA:O	35:2e:142:LEU:HG	2.21	0.41
37:2g:22:LEU:HD13	37:2g:97:GLN:NE2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2g:64:GLN:HE21	37:2g:68:ASN:ND2	2.19	0.41
39:2i:32:ASP:HB3	39:2i:35:GLU:HB3	2.03	0.41
40:2j:61:GLU:CD	44:2n:49:HIS:HE2	2.28	0.41
40:2j:74:ILE:HG12	40:2j:77:PRO:HA	2.03	0.41
42:2l:7:ILE:HG22	47:2q:34:LYS:HD2	2.03	0.41
42:2l:28:LYS:N	42:2l:29:GLY:HA2	2.35	0.41
43:2m:92:HIS:CE1	43:2m:98:VAL:HG21	2.56	0.41
44:2n:3:ARG:HG3	44:2n:4:LYS:H	1.85	0.41
48:2r:66:LEU:O	48:2r:70:ILE:HG13	2.21	0.41
49:2s:80:TYR:HE1	49:2s:83:HIS:HD1	1.69	0.41
51:2u:7:ARG:HA	51:2u:21:TYR:CE1	2.56	0.41
52:2v:-23:LEU:HD12	52:2v:-23:LEU:HA	1.95	0.41
52:2v:19:ALA:HB1	52:2v:107:VAL:O	2.21	0.41
52:2v:136:ALA:HB1	52:2v:149:VAL:HG21	2.03	0.41
52:2v:140:ASP:OD2	52:2v:262:SER:OG	2.36	0.41
1:1A:97:C:H2'	1:1A:98:G:H8	1.86	0.41
1:1A:319:C:H2'	1:1A:320:A:O4'	2.21	0.41
1:1A:873:G:N2	1:1A:905:U:C2	2.89	0.41
1:1A:1055:G:H2'	1:1A:1056:G:O4'	2.20	0.41
1:1A:1445:A:H1'	1:1A:1460:A:C2	2.56	0.41
1:1A:1450:G:C6	1:1A:1450(A):C:C4	3.09	0.41
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.56	0.41
5:1F:77:ASP:C	5:1F:79:GLY:N	2.79	0.41
6:1G:20:ILE:H	6:1G:20:ILE:HG13	1.64	0.41
8:1N:131:GLN:H	8:1N:131:GLN:HG2	1.64	0.41
9:1O:35:VAL:HG11	9:1O:103:ALA:CB	2.46	0.41
11:1Q:29:PHE:N	11:1Q:105:GLU:OE1	2.54	0.41
11:1Q:42:ILE:HD12	11:1Q:125:LEU:HD22	2.01	0.41
11:1Q:60:ARG:HG3	20:1Z:180:VAL:H	1.86	0.41
22:11:20:ARG:HA	22:11:34:THR:HA	2.03	0.41
31:1a:434:U:H2'	31:1a:435:C:C6	2.56	0.41
31:1a:540:G:H2'	31:1a:541:G:O4'	2.21	0.41
31:1a:642:A:HO2'	38:1h:31:PHE:HE1	1.67	0.41
31:1a:698:G:C6	31:1a:699:C:C4	3.09	0.41
37:1g:15:ASP:C	37:1g:16:LEU:HD13	2.46	0.41
40:1j:43:ARG:HB3	40:1j:67:THR:OG1	2.21	0.41
45:1o:50:HIS:O	45:1o:53:HIS:HB3	2.21	0.41
53:1w:7:TYR:N	53:1w:7:TYR:CD1	2.89	0.41
54:1x:40:C:H5"	54:1y:36:A:OP1	2.21	0.41
54:1y:70:G:C2	54:1y:71:G:C8	3.09	0.41
1:2A:534:U:H5'	15:2U:42:ALA:HB1	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:864:G:C6	1:2A:865:C:N4	2.89	0.41
1:2A:1007:C:OP1	8:2N:37:LYS:NZ	2.37	0.41
1:2A:2019:A:C6	1:2A:2020:A:N7	2.89	0.41
1:2A:2321:G:N3	1:2A:2321:G:H2'	2.36	0.41
1:2A:2493:U:C4	1:2A:2494:G:C8	3.09	0.41
1:2A:2636:U:H4'	4:2E:80:GLU:OE1	2.21	0.41
1:2A:2784:C:H2'	1:2A:2785:C:H6	1.86	0.41
2:2B:42:C:C4	2:2B:43:C:C4	3.09	0.41
2:2B:54:G:H21	6:2G:29:TRP:HE1	1.66	0.41
3:2D:76:PRO:HB3	3:2D:118:VAL:HB	2.03	0.41
5:2F:31:HIS:HB2	10:2P:9:ASN:OD1	2.21	0.41
5:2F:84:VAL:C	5:2F:86:GLY:H	2.29	0.41
6:2G:51:ARG:HA	6:2G:51:ARG:HD3	1.81	0.41
10:2P:20:GLY:N	10:2P:27:HIS:O	2.32	0.41
10:2P:52:GLU:O	10:2P:55:ARG:HG2	2.21	0.41
12:2R:57:ARG:NH2	12:2R:61:HIS:HD2	2.19	0.41
20:2Z:46:LYS:HB2	20:2Z:46:LYS:NZ	2.35	0.41
31:2a:533:A:O5'	31:2a:533:A:H2'	2.21	0.41
31:2a:659:U:H2'	31:2a:660:G:C8	2.56	0.41
31:2a:892:A:H2'	31:2a:893:C:C6	2.56	0.41
31:2a:1399:C:H4'	31:2a:1400:5MC:H3'	2.02	0.41
32:2b:177:ALA:HB1	32:2b:182:ILE:HB	2.03	0.41
37:2g:57:GLU:HG3	37:2g:59:LEU:H	1.85	0.41
38:2h:28:ALA:HB2	38:2h:58:TYR:O	2.21	0.41
38:2h:85:ARG:HD2	38:2h:85:ARG:HA	1.91	0.41
38:2h:104:ARG:HD3	38:2h:104:ARG:HA	1.80	0.41
43:2m:33:ALA:HB1	43:2m:56:LEU:HD11	2.03	0.41
47:2q:15:MET:HB2	47:2q:18:THR:HB	2.03	0.41
47:2q:59:ILE:HB	47:2q:71:PHE:HB3	2.03	0.41
52:2v:260:LEU:HB2	52:2v:261:GLY:H	1.70	0.41
1:1A:372:G:O2'	1:1A:373:U:OP2	2.38	0.40
1:1A:695:G:C2	1:1A:768:G:C5	3.09	0.40
1:1A:869:G:H2'	1:1A:870:A:C8	2.52	0.40
1:1A:989:G:OP2	24:13:11:SER:OG	2.24	0.40
1:1A:1049:C:O2	1:1A:1113:U:H4'	2.20	0.40
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.56	0.40
1:1A:1341:U:H4'	18:1X:56:THR:O	2.21	0.40
1:1A:1360:A:C6	1:1A:1372:U:C4	3.10	0.40
1:1A:1719:G:C6	1:1A:1720:U:C4	3.09	0.40
1:1A:2443:C:OP1	5:1F:68:LYS:HD3	2.21	0.40
3:1D:79:VAL:O	3:1D:114:GLY:N	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:196:LEU:HD23	5:1F:196:LEU:HA	1.78	0.40
19:1Y:11:ASP:HA	19:1Y:26:LYS:NZ	2.36	0.40
23:12:22:GLU:OE2	23:12:68:ARG:NH2	2.53	0.40
28:17:27:GLY:O	28:17:30:VAL:HB	2.20	0.40
31:1a:166:G:H2'	31:1a:167:G:C8	2.56	0.40
31:1a:318:G:H2'	31:1a:319:G:C8	2.56	0.40
31:1a:700:G:H4'	31:1a:704:A:H1'	2.03	0.40
32:1b:115:LEU:O	32:1b:119:GLU:HG2	2.21	0.40
34:1d:79:PHE:CE1	34:1d:204:ILE:HG23	2.56	0.40
52:1v:250:THR:N	52:1v:255:ILE:HG12	2.36	0.40
52:1v:330:VAL:HG21	52:1v:369:LEU:HB3	2.02	0.40
53:1w:120:GLN:HG3	53:1w:124:GLU:OE2	2.21	0.40
1:2A:28:A:H1'	1:2A:513:A:C2	2.56	0.40
1:2A:241:A:OP1	1:2A:243:U:H1'	2.21	0.40
1:2A:322:A:OP1	5:2F:168:ARG:HD2	2.21	0.40
1:2A:407:G:H2'	1:2A:408:G:C8	2.56	0.40
1:2A:448:U:H1'	5:2F:84:VAL:HG11	2.02	0.40
1:2A:834:C:H4'	29:28:54:GLU:OE2	2.22	0.40
1:2A:1037:G:N2	1:2A:1119:C:C2	2.89	0.40
1:2A:1339:G:H21	1:2A:1603:A:H1'	1.87	0.40
1:2A:1580:A:H5'	1:2A:1581:G:OP2	2.22	0.40
1:2A:2603:G:C2	1:2A:2604:U:C2	3.09	0.40
11:2Q:35:VAL:HG23	11:2Q:101:ARG:O	2.22	0.40
14:2T:55:ASN:O	14:2T:57:PHE:N	2.54	0.40
15:2U:25:TRP:CE3	15:2U:26:GLY:HA3	2.56	0.40
24:23:2:PRO:HG2	24:23:39:ASP:HB3	2.03	0.40
31:2a:227:G:H2'	31:2a:228:A:C8	2.56	0.40
31:2a:509:A:HO2'	31:2a:510:A:P	2.42	0.40
31:2a:521:G:H4'	42:2l:73:GLU:HG2	2.03	0.40
31:2a:541:G:H2'	31:2a:542:G:O4'	2.20	0.40
31:2a:606:G:H1'	31:2a:632:A:N6	2.36	0.40
31:2a:975:A:N1	40:2j:48:THR:HB	2.36	0.40
31:2a:1496:C:N4	31:2a:1497:G:O6	2.55	0.40
32:2b:83:MET:O	32:2b:87:ARG:N	2.53	0.40
32:2b:187:LEU:HD13	32:2b:214:ILE:HG21	2.02	0.40
32:2b:204:ASN:O	32:2b:210:SER:OG	2.29	0.40
35:2e:9:LYS:CB	35:2e:112:LEU:HD11	2.51	0.40
36:2f:69:GLU:H	36:2f:69:GLU:CD	2.29	0.40
37:2g:80:VAL:HG11	37:2g:154:TYR:CZ	2.56	0.40
43:2m:30:ALA:O	43:2m:34:LEU:HG	2.21	0.40
43:2m:87:TYR:CE2	43:2m:91:ARG:HD3	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:2v:157:LEU:HD12	52:2v:159:ALA:HB2	2.03	0.40
52:2v:520:GLY:N	52:2v:562:ASP:OD2	2.53	0.40
1:1A:59:U:H6	1:1A:59:U:O5'	2.05	0.40
1:1A:636:G:O2'	1:1A:638:G:O2'	2.31	0.40
1:1A:748:G:P	17:1W:88:ARG:HH21	2.44	0.40
1:1A:785:G:H2'	1:1A:786:C:C6	2.55	0.40
1:1A:931:G:C4	1:1A:933:A:C8	3.09	0.40
1:1A:1141:U:H4'	1:1A:1142(A):A:O4'	2.22	0.40
1:1A:1812:A:O2'	3:1D:45:ASN:N	2.54	0.40
1:1A:2231:C:OP1	22:11:42:GLN:HA	2.21	0.40
1:1A:2419:U:H2'	1:1A:2420:C:C6	2.57	0.40
6:1G:139:LEU:HD22	6:1G:146:TYR:HD1	1.87	0.40
9:1O:88:ASN:HD21	9:1O:92:GLU:HB2	1.86	0.40
11:1Q:110:THR:HG23	11:1Q:113:GLN:CB	2.51	0.40
25:14:59:PHE:CB	49:1s:45:VAL:HG21	2.51	0.40
27:16:12:GLU:HA	27:16:19:ARG:HA	2.03	0.40
31:1a:359:U:H2'	31:1a:360:A:C8	2.57	0.40
31:1a:565:U:OP2	31:1a:566:G:O2'	2.36	0.40
31:1a:826:C:H2'	31:1a:827:U:C6	2.57	0.40
31:1a:848:C:H2'	31:1a:849:C:C6	2.56	0.40
31:1a:1095:U:H2'	31:1a:1096:C:O4'	2.20	0.40
31:1a:1241:G:H2'	31:1a:1242:C:C6	2.55	0.40
32:1b:107:THR:O	32:1b:110:GLN:HB3	2.22	0.40
33:1c:3:ASN:OD1	33:1c:3:ASN:N	2.55	0.40
38:1h:91:ARG:HD3	47:1q:32:TYR:O	2.21	0.40
43:1m:3:ARG:HH12	43:1m:11:ARG:HH21	1.70	0.40
46:1p:26:ARG:HD2	46:1p:31:LYS:H	1.84	0.40
48:1r:72:ARG:O	48:1r:76:LEU:HD22	2.21	0.40
1:2A:297:C:H2'	1:2A:298:G:O4'	2.21	0.40
1:2A:449:A:H2'	1:2A:450:G:O4'	2.22	0.40
1:2A:515:A:H1'	1:2A:581:C:H1'	2.03	0.40
1:2A:533:G:H2'	1:2A:534:U:C6	2.56	0.40
1:2A:744:G:H5"	1:2A:1658:C:H5"	2.02	0.40
1:2A:862:G:H2'	1:2A:863:A:O4'	2.21	0.40
1:2A:1332:G:N7	1:2A:1609:A:O2'	2.54	0.40
1:2A:1365:A:C5'	22:21:41:ARG:HH22	2.33	0.40
1:2A:2222:G:H5'	3:2D:149:PRO:HG2	2.03	0.40
1:2A:2224:G:P	3:2D:269:PHE:HZ	2.43	0.40
1:2A:2469:A:H4'	11:2Q:56:ARG:HG2	2.02	0.40
1:2A:2576:G:C8	1:2A:2580:U:O4	2.74	0.40
1:2A:2601:C:O2'	1:2A:2603:G:H8	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:70:ALA:O	4:2E:72:VAL:N	2.54	0.40
4:2E:111:ARG:HD2	4:2E:160:TYR:CD2	2.57	0.40
9:2O:21:CYS:SG	9:2O:22:ILE:N	2.94	0.40
12:2R:72:ASP:OD2	12:2R:75:LEU:HB2	2.21	0.40
20:2Z:31:ARG:HD3	20:2Z:32:HIS:CE1	2.56	0.40
24:23:7:LYS:HZ3	24:23:34:GLU:HG3	1.86	0.40
25:24:61:ARG:HG2	49:2s:42:PRO:HB3	2.03	0.40
31:2a:575:G:C6	31:2a:821:G:N7	2.90	0.40
31:2a:1014:A:H5"	49:2s:14:HIS:HB2	2.03	0.40
31:2a:1170:A:H5'	32:2b:140:HIS:CE1	2.57	0.40
31:2a:1245:A:H2'	31:2a:1246:C:O4'	2.20	0.40
31:2a:1492:A:N3	31:2a:1492:A:H2'	2.37	0.40
31:2a:1511:G:H2'	31:2a:1512:U:O4'	2.21	0.40
39:2i:114:TYR:CD1	40:2j:59:SER:HA	2.56	0.40
39:2i:117:HIS:HB2	39:2i:121:ARG:HG2	2.03	0.40
42:2l:53:ARG:HB3	42:2l:69:TYR:HE1	1.85	0.40
46:2p:28:ARG:HG2	46:2p:29:ASP:OD1	2.22	0.40
52:2v:114:VAL:HG13	52:2v:156:ARG:CZ	2.51	0.40
54:2x:31:A:C2	54:2x:40:C:N3	2.89	0.40
1:1A:686:G:C8	28:17:7:PRO:HA	2.56	0.40
1:1A:754:C:O2'	1:1A:1272:A:N1	2.53	0.40
1:1A:784:A:N7	3:1D:229:VAL:HG21	2.36	0.40
1:1A:1045:A:C8	1:1A:1047:G:N2	2.90	0.40
1:1A:1452:A:O3'	12:1R:77:ARG:NH1	2.54	0.40
1:1A:1511:C:H2'	1:1A:1512:U:O4'	2.22	0.40
1:1A:1639:U:P	1:1A:2709:G:H21	2.44	0.40
1:1A:1784:A:H4'	1:1A:1785:A:O5'	2.22	0.40
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.57	0.40
1:1A:1973:G:H2'	1:1A:1974:C:H6	1.85	0.40
1:1A:2253:G:C5	1:1A:2254:C:N3	2.89	0.40
1:1A:2279:G:C6	1:1A:2280:G:C5	3.09	0.40
1:1A:2512:C:H2'	1:1A:2513:G:O4'	2.22	0.40
1:1A:2578:G:OP2	1:1A:2578:G:H4'	2.22	0.40
1:1A:2776:A:C6	1:1A:2778:A:C6	3.09	0.40
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.57	0.40
5:1F:43:LYS:HB2	5:1F:98:SER:HB2	2.02	0.40
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.56	0.40
10:1P:91:PHE:CZ	10:1P:100:LEU:HD23	2.57	0.40
20:1Z:44:PHE:CE2	20:1Z:86:VAL:HG11	2.57	0.40
20:1Z:132:ASN:N	20:1Z:132:ASN:OD1	2.54	0.40
31:1a:1206:G:H2'	31:1a:1207:2MG:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:1a:1524:C:OP1	41:1k:120:ARG:NH1	2.54	0.40
32:1b:71:VAL:HB	32:1b:164:VAL:HA	2.02	0.40
34:1d:129:ASN:N	34:1d:129:ASN:OD1	2.52	0.40
45:1o:39:LEU:HB3	45:1o:56:LEU:HD13	2.02	0.40
45:1o:56:LEU:O	45:1o:60:VAL:HG23	2.21	0.40
47:1q:57:VAL:HG12	47:1q:76:LEU:HA	2.03	0.40
52:1v:-65:LYS:HA	52:1v:-48:VAL:O	2.21	0.40
52:1v:20:HIS:HA	52:1v:117:GLN:CB	2.50	0.40
1:2A:300:A:P	19:2Y:86:ARG:NH2	2.95	0.40
1:2A:924:C:H2'	1:2A:925:C:C6	2.56	0.40
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.57	0.40
1:2A:1805:U:H5"	3:2D:250:TRP:CD2	2.55	0.40
1:2A:1910:G:N1	1:2A:1911:PSU:O2	2.54	0.40
1:2A:2010:G:H5"	17:2W:42:ARG:HB2	2.03	0.40
1:2A:2577:A:OP2	26:25:3:LYS:NZ	2.48	0.40
8:2N:40:PRO:C	8:2N:42:TRP:H	2.28	0.40
8:2N:115:ARG:HA	8:2N:118:LYS:HD2	2.02	0.40
11:2Q:4:PRO:HD3	11:2Q:70:PRO:O	2.21	0.40
17:2W:46:PHE:O	17:2W:50:VAL:HG23	2.21	0.40
31:2a:737:A:H1'	36:2f:73:ASN:ND2	2.30	0.40
31:2a:1247:U:H1'	31:2a:1291:G:N2	2.36	0.40
31:2a:1500:A:H5"	31:2a:1508:G:H5"	2.03	0.40
43:2m:3:ARG:HG2	43:2m:9:ILE:H	1.85	0.40
46:2p:25:ARG:HB2	46:2p:25:ARG:CZ	2.51	0.40
48:2r:32:ARG:HA	48:2r:69:THR:HG21	2.03	0.40
1:1A:272:G:C2	1:1A:421:U:C4	3.10	0.40
1:1A:322:A:P	5:1F:169:ASN:HB2	2.62	0.40
1:1A:596:G:C6	1:1A:597:U:C4	3.10	0.40
1:1A:1290:C:H2'	1:1A:1291:C:H6	1.85	0.40
1:1A:1778:U:C4	1:1A:1784:A:C4	3.10	0.40
1:1A:1785:A:C6	1:1A:1787:A:H1'	2.56	0.40
1:1A:1790:C:H2'	1:1A:1791:A:C4	2.56	0.40
1:1A:1853:A:H2'	1:1A:1854:A:C8	2.56	0.40
1:1A:1932:A:C2	1:1A:1933:G:H1'	2.56	0.40
1:1A:2183:C:HO2'	1:1A:2184:G:P	2.42	0.40
1:1A:2544:G:H2'	1:1A:2545:G:O4'	2.21	0.40
1:1A:2887:U:O2'	1:1A:2888:C:H5'	2.22	0.40
2:1B:1:U:H5"	2:1B:2:C:C5	2.47	0.40
2:1B:66:A:H61	2:1B:109:C:C5'	2.35	0.40
3:1D:44:ASN:C	3:1D:46:GLN:H	2.29	0.40
3:1D:78:LYS:HB3	3:1D:78:LYS:HE2	1.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:142:VAL:HG23	3:1D:193:VAL:HA	2.03	0.40
4:1E:54:GLN:OE1	4:1E:55:ASN:N	2.49	0.40
10:1P:64:LYS:HA	29:18:13:ARG:HG2	2.03	0.40
23:12:25:VAL:HG13	23:12:57:ILE:HG23	2.02	0.40
31:1a:16:A:N1	31:1a:919:A:H2	2.20	0.40
31:1a:102:G:O2'	31:1a:151:A:N3	2.41	0.40
31:1a:308:C:H2'	31:1a:309:G:C8	2.57	0.40
31:1a:533:A:C6	31:1a:536:C:C2	3.09	0.40
31:1a:919:A:H2'	31:1a:920:U:H6	1.87	0.40
31:1a:932:C:H2'	31:1a:933:G:C8	2.53	0.40
31:1a:938:A:N6	31:1a:939:G:C6	2.89	0.40
34:1d:188:LEU:HA	34:1d:189:PRO:HD3	1.87	0.40
45:1o:8:LYS:O	45:1o:12:ILE:HG13	2.21	0.40
52:1v:401:SER:O	52:1v:403:GLU:N	2.54	0.40
53:1w:38:LEU:HD11	53:1w:83:ILE:HD12	2.03	0.40
1:2A:37:C:H4'	1:2A:451:C:OP1	2.20	0.40
1:2A:210:C:OP2	28:27:29:LYS:NZ	2.42	0.40
1:2A:429:A:C6	1:2A:430:G:C6	3.10	0.40
1:2A:445:C:H2'	1:2A:446:G:O4'	2.20	0.40
1:2A:1002:G:H2'	1:2A:1003:G:O4'	2.21	0.40
1:2A:1235:G:C2	1:2A:1236:G:N2	2.89	0.40
1:2A:1500:G:H21	3:2D:100:GLY:HA3	1.86	0.40
1:2A:1614:A:C6	17:2W:87:PRO:HB3	2.56	0.40
1:2A:1655:A:H3'	1:2A:1656:C:C6	2.57	0.40
1:2A:1853:A:N6	1:2A:1889:A:C8	2.89	0.40
1:2A:2812:G:H1	1:2A:2888:C:H42	1.70	0.40
2:2B:6:C:C2	2:2B:116:G:N2	2.90	0.40
6:2G:37:VAL:O	6:2G:94:LEU:N	2.54	0.40
6:2G:38:VAL:N	6:2G:158:ALA:O	2.44	0.40
9:2O:49:ARG:NH2	31:2a:1423:G:OP1	2.54	0.40
10:2P:44:GLY:CA	10:2P:45:LEU:HB2	2.52	0.40
12:2R:8:ARG:NE	12:2R:43:GLU:OE2	2.54	0.40
14:2T:31:SER:OG	14:2T:44:ASP:OD1	2.31	0.40
17:2W:13:SER:O	17:2W:17:VAL:HG23	2.21	0.40
25:24:14:ILE:HB	25:24:22:ILE:HB	2.02	0.40
31:2a:51:A:H61	31:2a:314:C:H1'	1.86	0.40
31:2a:675:A:H1'	41:2k:116:HIS:CD2	2.56	0.40
31:2a:1064:G:H8	31:2a:1064:G:OP1	2.04	0.40
31:2a:1074:G:OP2	35:2e:61:TYR:OH	2.23	0.40
31:2a:1352:C:N4	31:2a:1370:G:H1	2.17	0.40
31:2a:1402:4OC:HM22	31:2a:1403:C:H5'	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2b:92:TYR:CE2	32:2b:151:GLY:HA3	2.57	0.40
34:2d:121:VAL:HA	34:2d:126:ILE:HB	2.03	0.40
46:2p:27:LYS:HE2	46:2p:27:LYS:HB3	1.87	0.40
52:2v:143:GLY:H	52:2v:171:GLU:CD	2.29	0.40
53:2w:129:ILE:HD13	53:2w:168:PHE:HB3	2.03	0.40
54:2x:3:C:H42	54:2x:70:G:H1	1.69	0.40
1:1A:99:U:C6	1:1A:102:G:N1	2.89	0.40
1:1A:468:G:C6	1:1A:469:G:C4	3.10	0.40
1:1A:548:A:H1'	1:1A:549:G:OP1	2.21	0.40
1:1A:586:A:H5'	5:1F:89:VAL:HG11	2.02	0.40
1:1A:593:G:C6	1:1A:594:U:C4	3.09	0.40
1:1A:628:G:H2'	1:1A:629:G:H8	1.85	0.40
1:1A:643:A:C8	27:16:44:ARG:NH1	2.90	0.40
1:1A:782:A:C8	3:1D:221:VAL:HG21	2.57	0.40
1:1A:1190:G:C2	1:1A:1191:G:N7	2.90	0.40
1:1A:1842:G:C5	1:1A:1843:C:C4	3.10	0.40
1:1A:1910:G:N2	1:1A:1921:G:N3	2.70	0.40
1:1A:2258:C:H4'	1:1A:2259:G:OP2	2.21	0.40
1:1A:2365:G:O6	29:18:39:LYS:HE3	2.22	0.40
1:1A:2412:A:H2'	1:1A:2413:G:O4'	2.22	0.40
1:1A:2517:C:C6	1:1A:2542:A:N7	2.89	0.40
1:1A:2544:G:H8	1:1A:2544:G:O5'	2.03	0.40
1:1A:2863:C:H2'	1:1A:2864:G:C8	2.57	0.40
3:1D:97:TYR:HB2	3:1D:101:GLU:O	2.21	0.40
3:1D:205:VAL:C	3:1D:207:GLY:N	2.80	0.40
3:1D:206:LEU:HA	3:1D:206:LEU:HD23	1.87	0.40
4:1E:131:ALA:HB1	4:1E:134:ILE:HD11	2.02	0.40
10:1P:30:THR:HG21	10:1P:34:GLY:CA	2.52	0.40
11:1Q:42:ILE:HG22	11:1Q:47:ILE:HG13	2.03	0.40
13:1S:49:VAL:HG23	13:1S:76:LYS:HE3	2.03	0.40
14:1T:25:GLY:HA2	14:1T:114:LEU:HD11	2.04	0.40
14:1T:113:LYS:HB3	14:1T:113:LYS:HE3	1.91	0.40
18:1X:57:LEU:HD12	18:1X:78:LYS:O	2.21	0.40
31:1a:50:A:H4'	31:1a:52:G:OP1	2.22	0.40
31:1a:265:G:H2'	31:1a:267:C:C5	2.57	0.40
31:1a:1198:G:H2'	31:1a:1199:U:C6	2.56	0.40
31:1a:1510:U:H1'	31:1a:1526:G:N2	2.37	0.40
33:1c:121:ALA:HA	33:1c:124:ILE:HD11	2.04	0.40
1:2A:35:G:H2'	1:2A:36:G:H8	1.86	0.40
1:2A:45:C:H2'	1:2A:47:C:H6	1.87	0.40
1:2A:670:A:C5'	10:2P:42:SER:HB3	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:692:C:N3	1:2A:771:G:C2	2.89	0.40
1:2A:882:G:H2'	1:2A:883:G:H8	1.86	0.40
1:2A:981:A:H4'	1:2A:2037:G:H5'	2.03	0.40
1:2A:993:G:H1'	16:2V:89:GLN:OE1	2.21	0.40
1:2A:1210:A:H5"	56:2A:3765:MG:MG	1.46	0.40
1:2A:1488:G:C6	1:2A:1489:U:C2	3.10	0.40
1:2A:2732:G:H3'	1:2A:2733:A:C4'	2.52	0.40
5:2F:196:LEU:HD23	5:2F:196:LEU:HA	1.91	0.40
7:2H:84:SER:HA	7:2H:133:VAL:O	2.21	0.40
8:2N:74:ARG:O	8:2N:82:LEU:HD12	2.21	0.40
12:2R:95:THR:HG22	12:2R:116:LEU:HD23	2.04	0.40
19:2Y:56:PRO:C	19:2Y:58:GLY:N	2.78	0.40
22:21:73:LEU:HD11	22:21:98:LEU:HD21	2.04	0.40
31:2a:9:G:H2'	31:2a:10:A:C8	2.55	0.40
31:2a:137:C:H1'	46:2p:62:VAL:O	2.21	0.40
31:2a:504:C:H2'	31:2a:511:C:C5	2.56	0.40
31:2a:791:G:O6	31:2a:792:A:N6	2.55	0.40
31:2a:1004:A:H5"	31:2a:1024:G:H1	1.86	0.40
31:2a:1084:G:H5'	31:2a:1102:A:OP2	2.21	0.40
31:2a:1376:U:H2'	31:2a:1377:A:H8	1.86	0.40
31:2a:1493:A:H3'	31:2a:1494:G:H5"	2.03	0.40
33:2c:46:GLU:O	33:2c:47:LEU:HD23	2.22	0.40
40:2j:51:ARG:H	40:2j:60:ARG:HA	1.87	0.40
43:2m:19:LEU:HB3	43:2m:25:ILE:HG21	2.03	0.40
47:2q:61:GLU:HA	47:2q:71:PHE:CD1	2.56	0.40
52:2v:38:ARG:HE	52:2v:38:ARG:HB3	1.73	0.40
52:2v:406:GLU:CD	52:2v:407:PRO:HD2	2.46	0.40
54:2x:32:PSU:O2'	54:2y:34:G:H1'	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	1D	273/276 (99%)	241 (88%)	26 (10%)	6 (2%)	5 30
3	2D	273/276 (99%)	234 (86%)	33 (12%)	6 (2%)	5 30
4	1E	202/206 (98%)	179 (89%)	19 (9%)	4 (2%)	6 32
4	2E	202/206 (98%)	174 (86%)	26 (13%)	2 (1%)	12 44
5	1F	201/210 (96%)	182 (90%)	17 (8%)	2 (1%)	12 44
5	2F	201/210 (96%)	183 (91%)	15 (8%)	3 (2%)	8 37
6	1G	179/182 (98%)	155 (87%)	23 (13%)	1 (1%)	21 54
6	2G	179/182 (98%)	147 (82%)	27 (15%)	5 (3%)	4 26
7	1H	172/180 (96%)	152 (88%)	18 (10%)	2 (1%)	10 41
7	2H	172/180 (96%)	151 (88%)	19 (11%)	2 (1%)	10 41
8	1N	138/140 (99%)	121 (88%)	16 (12%)	1 (1%)	18 51
8	2N	138/140 (99%)	127 (92%)	8 (6%)	3 (2%)	5 30
9	1O	120/122 (98%)	105 (88%)	13 (11%)	2 (2%)	7 35
9	2O	120/122 (98%)	103 (86%)	16 (13%)	1 (1%)	16 49
10	1P	147/150 (98%)	134 (91%)	11 (8%)	2 (1%)	9 38
10	2P	147/150 (98%)	132 (90%)	13 (9%)	2 (1%)	9 38
11	1Q	139/141 (99%)	123 (88%)	14 (10%)	2 (1%)	9 38
11	2Q	139/141 (99%)	122 (88%)	16 (12%)	1 (1%)	18 51
12	1R	116/118 (98%)	91 (78%)	21 (18%)	4 (3%)	3 23
12	2R	116/118 (98%)	110 (95%)	5 (4%)	1 (1%)	14 47
13	1S	108/112 (96%)	96 (89%)	12 (11%)	0	100 100
13	2S	108/112 (96%)	96 (89%)	10 (9%)	2 (2%)	6 33
14	1T	129/146 (88%)	117 (91%)	12 (9%)	0	100 100
14	2T	129/146 (88%)	115 (89%)	13 (10%)	1 (1%)	16 49
15	1U	114/118 (97%)	104 (91%)	8 (7%)	2 (2%)	6 34
15	2U	114/118 (97%)	109 (96%)	4 (4%)	1 (1%)	14 47
16	1V	99/101 (98%)	85 (86%)	12 (12%)	2 (2%)	6 32
16	2V	99/101 (98%)	86 (87%)	12 (12%)	1 (1%)	12 44
17	1W	110/113 (97%)	98 (89%)	10 (9%)	2 (2%)	6 34
17	2W	110/113 (97%)	102 (93%)	7 (6%)	1 (1%)	14 47
18	1X	93/96 (97%)	84 (90%)	6 (6%)	3 (3%)	3 24
18	2X	93/96 (97%)	81 (87%)	11 (12%)	1 (1%)	11 43

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
19	1Y	105/110 (96%)	88 (84%)	15 (14%)	2 (2%)	6 33
19	2Y	105/110 (96%)	92 (88%)	10 (10%)	3 (3%)	3 26
20	1Z	202/206 (98%)	159 (79%)	34 (17%)	9 (4%)	2 17
20	2Z	202/206 (98%)	161 (80%)	28 (14%)	13 (6%)	1 11
21	10	73/85 (86%)	69 (94%)	4 (6%)	0	100 100
21	20	73/85 (86%)	67 (92%)	5 (7%)	1 (1%)	9 38
22	11	95/98 (97%)	90 (95%)	5 (5%)	0	100 100
22	21	95/98 (97%)	89 (94%)	4 (4%)	2 (2%)	5 31
23	12	68/72 (94%)	60 (88%)	5 (7%)	3 (4%)	2 17
23	22	68/72 (94%)	63 (93%)	5 (7%)	0	100 100
24	13	57/60 (95%)	51 (90%)	5 (9%)	1 (2%)	6 34
24	23	57/60 (95%)	51 (90%)	5 (9%)	1 (2%)	6 34
25	14	67/71 (94%)	51 (76%)	10 (15%)	6 (9%)	0 7
25	24	67/71 (94%)	53 (79%)	10 (15%)	4 (6%)	1 12
26	15	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
26	25	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
27	16	51/54 (94%)	46 (90%)	5 (10%)	0	100 100
27	26	51/54 (94%)	48 (94%)	2 (4%)	1 (2%)	6 32
28	17	46/49 (94%)	43 (94%)	3 (6%)	0	100 100
28	27	46/49 (94%)	40 (87%)	5 (11%)	1 (2%)	5 30
29	18	62/65 (95%)	54 (87%)	7 (11%)	1 (2%)	7 36
29	28	62/65 (95%)	57 (92%)	5 (8%)	0	100 100
30	19	35/37 (95%)	30 (86%)	5 (14%)	0	100 100
30	29	35/37 (95%)	31 (89%)	4 (11%)	0	100 100
32	1b	229/256 (90%)	190 (83%)	32 (14%)	7 (3%)	3 25
32	2b	229/256 (90%)	199 (87%)	22 (10%)	8 (4%)	3 23
33	1c	204/239 (85%)	183 (90%)	17 (8%)	4 (2%)	6 32
33	2c	204/239 (85%)	172 (84%)	30 (15%)	2 (1%)	12 44
34	1d	206/209 (99%)	181 (88%)	21 (10%)	4 (2%)	6 33
34	2d	206/209 (99%)	189 (92%)	16 (8%)	1 (0%)	24 57
35	1e	146/162 (90%)	127 (87%)	17 (12%)	2 (1%)	9 38

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	2e	146/162 (90%)	127 (87%)	19 (13%)	0	100	100
36	1f	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
36	2f	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
37	1g	153/156 (98%)	135 (88%)	14 (9%)	4 (3%)	4	27
37	2g	153/156 (98%)	135 (88%)	14 (9%)	4 (3%)	4	27
38	1h	135/138 (98%)	125 (93%)	10 (7%)	0	100	100
38	2h	135/138 (98%)	118 (87%)	16 (12%)	1 (1%)	18	51
39	1i	125/128 (98%)	106 (85%)	19 (15%)	0	100	100
39	2i	125/128 (98%)	104 (83%)	21 (17%)	0	100	100
40	1j	95/105 (90%)	82 (86%)	9 (10%)	4 (4%)	2	19
40	2j	94/105 (90%)	78 (83%)	15 (16%)	1 (1%)	11	43
41	1k	112/129 (87%)	101 (90%)	9 (8%)	2 (2%)	6	34
41	2k	112/129 (87%)	98 (88%)	12 (11%)	2 (2%)	6	34
42	1l	119/132 (90%)	109 (92%)	9 (8%)	1 (1%)	16	49
42	2l	119/132 (90%)	97 (82%)	19 (16%)	3 (2%)	4	28
43	1m	116/126 (92%)	100 (86%)	16 (14%)	0	100	100
43	2m	120/126 (95%)	104 (87%)	14 (12%)	2 (2%)	7	35
44	1n	58/61 (95%)	49 (84%)	8 (14%)	1 (2%)	7	35
44	2n	58/61 (95%)	50 (86%)	7 (12%)	1 (2%)	7	35
45	1o	86/89 (97%)	79 (92%)	5 (6%)	2 (2%)	5	30
45	2o	86/89 (97%)	78 (91%)	4 (5%)	4 (5%)	2	17
46	1p	80/88 (91%)	66 (82%)	12 (15%)	2 (2%)	4	28
46	2p	80/88 (91%)	71 (89%)	8 (10%)	1 (1%)	9	39
47	1q	97/105 (92%)	84 (87%)	13 (13%)	0	100	100
47	2q	97/105 (92%)	84 (87%)	11 (11%)	2 (2%)	5	31
48	1r	66/88 (75%)	64 (97%)	2 (3%)	0	100	100
48	2r	66/88 (75%)	62 (94%)	3 (4%)	1 (2%)	8	37
49	1s	81/93 (87%)	68 (84%)	9 (11%)	4 (5%)	1	16
49	2s	81/93 (87%)	65 (80%)	14 (17%)	2 (2%)	4	28
50	1t	94/106 (89%)	82 (87%)	7 (7%)	5 (5%)	1	14
50	2t	94/106 (89%)	81 (86%)	10 (11%)	3 (3%)	3	24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
51	1u	21/27 (78%)	18 (86%)	3 (14%)	0	100	100
51	2u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
52	1v	724/758 (96%)	593 (82%)	105 (14%)	26 (4%)	2	22
52	2v	724/758 (96%)	602 (83%)	97 (13%)	25 (4%)	3	23
53	1w	183/185 (99%)	159 (87%)	16 (9%)	8 (4%)	2	17
53	2w	183/185 (99%)	165 (90%)	13 (7%)	5 (3%)	4	27
All	All	12975/13718 (95%)	11321 (87%)	1394 (11%)	260 (2%)	6	32

All (260) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
7	1H	126	PRO
10	1P	53	GLY
11	1Q	16	ARG
16	1V	97	LYS
20	1Z	177	PRO
20	1Z	184	ALA
20	1Z	198	LYS
35	1e	21	ALA
40	1j	55	LYS
52	1v	-57	GLU
52	1v	85	PRO
52	1v	92	ILE
52	1v	183	MET
52	1v	401	SER
52	1v	472	VAL
53	1w	61	PRO
5	2F	130	ALA
7	2H	29	PRO
7	2H	126	PRO
19	2Y	21	LYS
20	2Z	182	LYS
20	2Z	183	LEU
28	27	46	VAL
42	2l	121	GLY
52	2v	-57	GLU
52	2v	85	PRO
52	2v	92	ILE
52	2v	183	MET

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Mol	Chain	Res	Type
52	2v	472	VAL
3	1D	169	GLU
4	1E	113	PHE
5	1F	54	ARG
12	1R	3	HIS
12	1R	23	ASN
16	1V	79	VAL
20	1Z	119	GLU
23	12	69	ARG
25	14	44	THR
25	14	45	GLY
25	14	53	GLU
32	1b	22	LYS
37	1g	79	ARG
45	1o	17	ARG
46	1p	53	VAL
49	1s	63	THR
52	1v	402	ILE
52	1v	444	PRO
52	1v	447	GLY
53	1w	30	THR
53	1w	84	ARG
53	1w	97	ASP
3	2D	3	VAL
6	2G	126	ASP
8	2N	8	GLN
10	2P	38	GLN
11	2Q	27	VAL
13	2S	94	TYR
14	2T	56	GLY
16	2V	79	VAL
17	2W	98	LYS
20	2Z	154	ASP
25	24	46	GLN
34	2d	5	ILE
37	2g	114	ARG
41	2k	105	VAL
43	2m	23	TYR
52	2v	88	VAL
52	2v	401	SER
52	2v	605	ILE
53	2w	85	ASP

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Mol	Chain	Res	Type
3	1D	144	ALA
3	1D	206	LEU
4	1E	52	LEU
10	1P	58	THR
17	1W	90	ARG
18	1X	93	GLU
19	1Y	54	LYS
25	14	57	GLU
32	1b	8	LYS
32	1b	36	ARG
32	1b	231	GLU
33	1c	98	ASN
40	1j	78	ASN
45	1o	23	GLY
49	1s	35	SER
49	1s	65	ASN
50	1t	9	ASN
50	1t	95	ALA
52	1v	87	HIS
52	1v	88	VAL
52	1v	171	GLU
52	1v	482	ALA
3	2D	79	VAL
3	2D	125	ILE
3	2D	257	LEU
12	2R	14	SER
15	2U	5	LYS
20	2Z	135	GLU
22	21	3	LYS
25	24	61	ARG
32	2b	8	LYS
32	2b	16	HIS
32	2b	17	PHE
32	2b	95	GLN
32	2b	150	SER
37	2g	7	ALA
43	2m	6	GLY
44	2n	28	GLY
45	2o	6	GLU
50	2t	47	GLY
52	2v	171	GLU
52	2v	469	GLU

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Mol	Chain	Res	Type
52	2v	471	LYS
52	2v	473	ASP
52	2v	688	ILE
3	1D	99	ASP
6	1G	75	LYS
9	1O	25	LEU
12	1R	53	HIS
15	1U	9	VAL
15	1U	24	TYR
19	1Y	53	PRO
20	1Z	155	LEU
32	1b	20	GLU
32	1b	125	PRO
34	1d	5	ILE
37	1g	114	ARG
46	1p	28	ARG
50	1t	10	LEU
50	1t	100	ILE
52	1v	404	VAL
52	1v	473	ASP
53	1w	2	THR
3	2D	31	LYS
3	2D	80	ALA
4	2E	52	LEU
5	2F	169	ASN
6	2G	47	LYS
6	2G	116	ASP
8	2N	23	LEU
8	2N	41	ASP
18	2X	2	LYS
20	2Z	155	LEU
20	2Z	184	ALA
20	2Z	198	LYS
22	21	45	ASN
32	2b	125	PRO
32	2b	231	GLU
33	2c	71	ALA
37	2g	4	ARG
41	2k	49	GLY
42	2l	107	ALA
45	2o	17	ARG
45	2o	88	ARG

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Mol	Chain	Res	Type
49	2s	12	ASP
50	2t	102	GLY
52	2v	-25	SER
53	2w	167	GLU
3	1D	127	VAL
4	1E	134	ILE
11	1Q	13	GLN
12	1R	59	ASP
17	1W	5	ALA
20	1Z	161	VAL
20	1Z	197	ILE
23	12	32	LEU
23	12	68	ARG
24	13	16	PRO
25	14	56	VAL
33	1c	66	VAL
37	1g	80	VAL
37	1g	131	LYS
40	1j	56	HIS
40	1j	77	PRO
42	1l	74	GLY
49	1s	66	MET
52	1v	170	ARG
52	1v	604	PRO
52	1v	671	MET
4	2E	41	LYS
5	2F	23	ASP
9	2O	17	ARG
10	2P	53	GLY
19	2Y	58	GLY
20	2Z	11	GLU
20	2Z	157	LEU
20	2Z	179	ASP
20	2Z	197	ILE
21	20	33	ALA
27	26	3	SER
33	2c	3	ASN
37	2g	80	VAL
38	2h	102	ARG
42	2l	120	TYR
48	2r	52	PRO
52	2v	404	VAL

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Mol	Chain	Res	Type
52	2v	671	MET
4	1E	100	GLU
18	1X	45	THR
20	1Z	191	VAL
25	14	62	ARG
32	1b	17	PHE
33	1c	3	ASN
33	1c	99	VAL
34	1d	73	ARG
44	1n	14	PRO
52	1v	324	ARG
52	1v	640	ALA
52	1v	684	GLN
13	2S	84	GLN
19	2Y	103	GLY
24	23	59	VAL
25	24	11	PRO
25	24	48	ARG
32	2b	131	PRO
45	2o	23	GLY
49	2s	76	PRO
50	2t	99	LEU
52	2v	447	GLY
52	2v	481	VAL
53	2w	55	ILE
53	2w	84	ARG
34	1d	90	GLY
41	1k	49	GLY
41	1k	105	VAL
52	1v	477	GLY
20	2Z	161	VAL
47	2q	33	GLY
52	2v	288	PRO
20	1Z	157	LEU
52	1v	598	ASP
53	1w	31	GLY
6	2G	177	GLY
52	2v	402	ILE
52	2v	477	GLY
7	1H	55	PRO
18	1X	94	GLY
29	18	28	GLY

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Mol	Chain	Res	Type
34	1d	69	GLY
35	1e	85	GLY
50	1t	47	GLY
52	1v	502	GLY
52	1v	503	GLY
6	2G	127	GLY
20	2Z	180	VAL
40	2j	75	ILE
47	2q	77	VAL
52	2v	294	PRO
52	2v	405	PRO
53	2w	61	PRO
3	1D	207	GLY
8	1N	111	PRO
52	1v	532	GLY
53	1w	35	PRO
46	2p	53	VAL
52	2v	115	GLU
52	2v	535	PRO
9	1O	77	ILE
53	1w	27	GLY

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	215/218 (99%)	190 (88%)	25 (12%)	5 24
3	2D	215/218 (99%)	202 (94%)	13 (6%)	17 44
4	1E	164/166 (99%)	146 (89%)	18 (11%)	6 26
4	2E	164/166 (99%)	148 (90%)	16 (10%)	7 30
5	1F	160/166 (96%)	143 (89%)	17 (11%)	6 27
5	2F	159/166 (96%)	152 (96%)	7 (4%)	25 51
6	1G	150/156 (96%)	140 (93%)	10 (7%)	15 41
6	2G	150/156 (96%)	144 (96%)	6 (4%)	28 54

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
7	1H	144/148 (97%)	133 (92%)	11 (8%)	12 37
7	2H	144/148 (97%)	140 (97%)	4 (3%)	38 61
8	1N	118/119 (99%)	104 (88%)	14 (12%)	5 23
8	2N	118/119 (99%)	111 (94%)	7 (6%)	18 44
9	1O	100/100 (100%)	94 (94%)	6 (6%)	17 44
9	2O	100/100 (100%)	96 (96%)	4 (4%)	28 54
10	1P	115/116 (99%)	107 (93%)	8 (7%)	14 39
10	2P	115/116 (99%)	109 (95%)	6 (5%)	21 47
11	1Q	111/111 (100%)	107 (96%)	4 (4%)	31 57
11	2Q	111/111 (100%)	104 (94%)	7 (6%)	16 42
12	1R	101/101 (100%)	80 (79%)	21 (21%)	1 6
12	2R	101/101 (100%)	96 (95%)	5 (5%)	22 48
13	1S	86/88 (98%)	75 (87%)	11 (13%)	4 21
13	2S	85/88 (97%)	80 (94%)	5 (6%)	18 44
14	1T	115/127 (91%)	104 (90%)	11 (10%)	8 30
14	2T	113/127 (89%)	109 (96%)	4 (4%)	32 57
15	1U	93/94 (99%)	89 (96%)	4 (4%)	26 51
15	2U	93/94 (99%)	92 (99%)	1 (1%)	65 74
16	1V	80/82 (98%)	68 (85%)	12 (15%)	3 17
16	2V	80/82 (98%)	76 (95%)	4 (5%)	22 48
17	1W	90/92 (98%)	83 (92%)	7 (8%)	11 36
17	2W	90/92 (98%)	80 (89%)	10 (11%)	6 25
18	1X	77/78 (99%)	71 (92%)	6 (8%)	11 36
18	2X	77/78 (99%)	72 (94%)	5 (6%)	15 42
19	1Y	85/91 (93%)	78 (92%)	7 (8%)	10 34
19	2Y	85/91 (93%)	80 (94%)	5 (6%)	18 44
20	1Z	167/179 (93%)	144 (86%)	23 (14%)	3 19
20	2Z	167/179 (93%)	147 (88%)	20 (12%)	5 23
21	10	60/67 (90%)	58 (97%)	2 (3%)	33 58
21	20	60/67 (90%)	58 (97%)	2 (3%)	33 58
22	11	80/83 (96%)	73 (91%)	7 (9%)	9 32

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
22	21	80/83 (96%)	76 (95%)	4 (5%)	22 48
23	12	65/67 (97%)	59 (91%)	6 (9%)	8 32
23	22	65/67 (97%)	64 (98%)	1 (2%)	57 71
24	13	51/52 (98%)	43 (84%)	8 (16%)	2 15
24	23	50/52 (96%)	46 (92%)	4 (8%)	11 35
25	14	59/63 (94%)	51 (86%)	8 (14%)	3 19
25	24	53/63 (84%)	47 (89%)	6 (11%)	5 25
26	15	50/52 (96%)	48 (96%)	2 (4%)	28 54
26	25	50/52 (96%)	46 (92%)	4 (8%)	11 35
27	16	51/52 (98%)	49 (96%)	2 (4%)	28 54
27	26	50/52 (96%)	50 (100%)	0	100 100
28	17	41/42 (98%)	37 (90%)	4 (10%)	7 30
28	27	41/42 (98%)	36 (88%)	5 (12%)	5 22
29	18	54/55 (98%)	52 (96%)	2 (4%)	30 56
29	28	54/55 (98%)	53 (98%)	1 (2%)	50 68
30	19	34/34 (100%)	33 (97%)	1 (3%)	37 60
30	29	34/34 (100%)	32 (94%)	2 (6%)	18 44
32	1b	192/220 (87%)	180 (94%)	12 (6%)	16 42
32	2b	187/220 (85%)	177 (95%)	10 (5%)	20 47
33	1c	142/188 (76%)	135 (95%)	7 (5%)	22 48
33	2c	140/188 (74%)	131 (94%)	9 (6%)	16 42
34	1d	169/181 (93%)	158 (94%)	11 (6%)	15 42
34	2d	173/181 (96%)	164 (95%)	9 (5%)	21 47
35	1e	113/123 (92%)	107 (95%)	6 (5%)	20 47
35	2e	114/123 (93%)	106 (93%)	8 (7%)	14 39
36	1f	84/90 (93%)	84 (100%)	0	100 100
36	2f	85/90 (94%)	78 (92%)	7 (8%)	10 34
37	1g	119/127 (94%)	111 (93%)	8 (7%)	15 41
37	2g	120/127 (94%)	117 (98%)	3 (2%)	42 63
38	1h	114/119 (96%)	109 (96%)	5 (4%)	25 51
38	2h	114/119 (96%)	106 (93%)	8 (7%)	14 39

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	1i	90/99 (91%)	84 (93%)	6 (7%)	15	41
39	2i	89/99 (90%)	80 (90%)	9 (10%)	7	28
40	1j	66/92 (72%)	63 (96%)	3 (4%)	24	50
40	2j	69/92 (75%)	67 (97%)	2 (3%)	37	60
41	1k	82/99 (83%)	79 (96%)	3 (4%)	30	56
41	2k	83/99 (84%)	81 (98%)	2 (2%)	43	64
42	1l	96/108 (89%)	89 (93%)	7 (7%)	13	38
42	2l	96/108 (89%)	94 (98%)	2 (2%)	47	66
43	1m	89/101 (88%)	86 (97%)	3 (3%)	32	57
43	2m	92/101 (91%)	87 (95%)	5 (5%)	20	46
44	1n	49/50 (98%)	46 (94%)	3 (6%)	17	43
44	2n	49/50 (98%)	48 (98%)	1 (2%)	48	67
45	1o	78/80 (98%)	77 (99%)	1 (1%)	61	72
45	2o	78/80 (98%)	71 (91%)	7 (9%)	9	32
46	1p	69/74 (93%)	61 (88%)	8 (12%)	5	24
46	2p	68/74 (92%)	63 (93%)	5 (7%)	13	37
47	1q	94/97 (97%)	89 (95%)	5 (5%)	20	47
47	2q	94/97 (97%)	90 (96%)	4 (4%)	26	51
48	1r	59/77 (77%)	56 (95%)	3 (5%)	21	48
48	2r	59/77 (77%)	56 (95%)	3 (5%)	21	48
49	1s	69/80 (86%)	64 (93%)	5 (7%)	13	38
49	2s	67/80 (84%)	61 (91%)	6 (9%)	9	32
50	1t	70/82 (85%)	68 (97%)	2 (3%)	37	60
50	2t	70/82 (85%)	69 (99%)	1 (1%)	59	71
51	1u	18/22 (82%)	17 (94%)	1 (6%)	19	46
51	2u	18/22 (82%)	18 (100%)	0	100	100
52	1v	605/636 (95%)	511 (84%)	94 (16%)	2	15
52	2v	605/636 (95%)	509 (84%)	96 (16%)	2	14
53	1w	157/157 (100%)	130 (83%)	27 (17%)	2	12
53	2w	157/157 (100%)	138 (88%)	19 (12%)	5	22
All	All	10671/11402 (94%)	9820 (92%)	851 (8%)	11	35

All (851) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	14	ARG
3	1D	15	PHE
3	1D	35	LYS
3	1D	50	THR
3	1D	60	ARG
3	1D	61	LEU
3	1D	64	ILE
3	1D	68	LYS
3	1D	73	VAL
3	1D	83	GLU
3	1D	116	GLN
3	1D	141	VAL
3	1D	150	LYS
3	1D	154	LYS
3	1D	161	THR
3	1D	193	VAL
3	1D	211	ARG
3	1D	212	SER
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	254	THR
3	1D	257	LEU
3	1D	271	ILE
4	1E	7	VAL
4	1E	14	ILE
4	1E	21	VAL
4	1E	23	VAL
4	1E	24	THR
4	1E	45	THR
4	1E	73	GLU
4	1E	75	VAL
4	1E	97	LYS
4	1E	103	ASP
4	1E	104	VAL
4	1E	117	MET
4	1E	119	ARG
4	1E	134	ILE
4	1E	141	ILE
4	1E	168	MET
4	1E	178	GLU

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Mol	Chain	Res	Type
4	1E	184	VAL
5	1F	19	GLU
5	1F	28	ILE
5	1F	54	ARG
5	1F	57	VAL
5	1F	70	THR
5	1F	74	ARG
5	1F	78	ILE
5	1F	89	VAL
5	1F	106	ARG
5	1F	125	LEU
5	1F	149	ASP
5	1F	165	ARG
5	1F	170	LEU
5	1F	175	THR
5	1F	183	VAL
5	1F	187	VAL
5	1F	194	MET
6	1G	7	LEU
6	1G	28	VAL
6	1G	34	LEU
6	1G	43	LEU
6	1G	59	GLU
6	1G	64	THR
6	1G	70	VAL
6	1G	91	ARG
6	1G	133	LEU
6	1G	161	THR
7	1H	2	SER
7	1H	15	VAL
7	1H	24	VAL
7	1H	25	LYS
7	1H	44	VAL
7	1H	45	VAL
7	1H	71	LEU
7	1H	98	LEU
7	1H	124	GLU
7	1H	155	SER
7	1H	172	LYS
8	1N	16	ILE
8	1N	32	THR
8	1N	33	LEU

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Mol	Chain	Res	Type
8	1N	34	LEU
8	1N	48	MET
8	1N	55	VAL
8	1N	61	ARG
8	1N	62	VAL
8	1N	67	LEU
8	1N	99	LEU
8	1N	101	HIS
8	1N	107	LEU
8	1N	114	ARG
8	1N	120	LEU
9	1O	12	ASP
9	1O	21	CYS
9	1O	32	TYR
9	1O	57	VAL
9	1O	77	ILE
9	1O	108	GLU
10	1P	46	LYS
10	1P	71	VAL
10	1P	95	VAL
10	1P	96	THR
10	1P	112	LEU
10	1P	117	GLU
10	1P	125	VAL
10	1P	148	LEU
11	1Q	68	ILE
11	1Q	79	LEU
11	1Q	109	VAL
11	1Q	110	THR
12	1R	14	SER
12	1R	24	GLN
12	1R	29	LEU
12	1R	34	ILE
12	1R	36	THR
12	1R	44	LEU
12	1R	48	VAL
12	1R	54	LEU
12	1R	57	ARG
12	1R	59	ASP
12	1R	65	LEU
12	1R	67	LEU
12	1R	73	VAL

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Mol	Chain	Res	Type
12	1R	74	LYS
12	1R	79	LEU
12	1R	95	THR
12	1R	99	LYS
12	1R	100	LEU
12	1R	102	GLU
12	1R	114	VAL
12	1R	117	VAL
13	1S	8	GLU
13	1S	19	LYS
13	1S	31	SER
13	1S	36	TYR
13	1S	49	VAL
13	1S	50	SER
13	1S	65	VAL
13	1S	76	LYS
13	1S	85	VAL
13	1S	98	VAL
13	1S	110	LEU
14	1T	6	LEU
14	1T	10	VAL
14	1T	21	GLU
14	1T	27	THR
14	1T	28	VAL
14	1T	53	ARG
14	1T	88	ILE
14	1T	96	ARG
14	1T	106	SER
14	1T	114	LEU
14	1T	128	GLU
15	1U	74	LEU
15	1U	77	SER
15	1U	94	ASN
15	1U	97	ASP
16	1V	13	ARG
16	1V	14	VAL
16	1V	33	VAL
16	1V	35	LEU
16	1V	46	VAL
16	1V	52	VAL
16	1V	61	VAL
16	1V	62	LEU

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Mol	Chain	Res	Type
16	1V	72	VAL
16	1V	95	LEU
16	1V	98	GLU
16	1V	99	ILE
17	1W	1	MET
17	1W	23	LEU
17	1W	24	ILE
17	1W	67	ASP
17	1W	83	LYS
17	1W	107	LEU
17	1W	109	GLU
18	1X	3	THR
18	1X	30	VAL
18	1X	35	THR
18	1X	52	VAL
18	1X	57	LEU
18	1X	80	ILE
19	1Y	3	VAL
19	1Y	12	THR
19	1Y	31	LEU
19	1Y	43	ASN
19	1Y	72	VAL
19	1Y	98	VAL
19	1Y	99	CYS
20	1Z	5	LEU
20	1Z	18	LEU
20	1Z	28	MET
20	1Z	33	LEU
20	1Z	41	LEU
20	1Z	42	VAL
20	1Z	49	ARG
20	1Z	56	VAL
20	1Z	61	LEU
20	1Z	63	ASP
20	1Z	70	LEU
20	1Z	71	VAL
20	1Z	81	ARG
20	1Z	91	LEU
20	1Z	94	GLU
20	1Z	96	VAL
20	1Z	123	ASP
20	1Z	126	VAL

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Mol	Chain	Res	Type
20	1Z	128	VAL
20	1Z	136	PHE
20	1Z	156	LYS
20	1Z	178	GLU
20	1Z	180	VAL
21	10	36	ILE
21	10	38	VAL
22	11	7	ILE
22	11	14	VAL
22	11	30	VAL
22	11	35	THR
22	11	40	ARG
22	11	56	GLN
22	11	86	SER
23	12	3	LEU
23	12	4	SER
23	12	28	LYS
23	12	32	LEU
23	12	35	LEU
23	12	69	ARG
24	13	3	ARG
24	13	6	VAL
24	13	20	LYS
24	13	29	ARG
24	13	31	LEU
24	13	40	THR
24	13	56	VAL
24	13	60	GLU
25	14	16	CYS
25	14	33	VAL
25	14	46	GLN
25	14	49	PHE
25	14	52	THR
25	14	56	VAL
25	14	63	TYR
25	14	67	TYR
26	15	16	ARG
26	15	19	ARG
27	16	6	ARG
27	16	51	GLU
28	17	1	MET
28	17	4	THR

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Mol	Chain	Res	Type
28	17	41	ARG
28	17	43	THR
29	18	27	THR
29	18	37	SER
30	19	12	ASP
32	1b	7	VAL
32	1b	8	LYS
32	1b	19	HIS
32	1b	21	ARG
32	1b	37	ASN
32	1b	94	ASN
32	1b	122	PHE
32	1b	127	ILE
32	1b	140	HIS
32	1b	162	ILE
32	1b	195	ASP
32	1b	198	ASP
33	1c	17	ASP
33	1c	55	VAL
33	1c	57	ILE
33	1c	103	VAL
33	1c	115	LEU
33	1c	124	ILE
33	1c	195	VAL
34	1d	17	VAL
34	1d	28	SER
34	1d	59	ARG
34	1d	108	LEU
34	1d	134	ASP
34	1d	135	LEU
34	1d	170	VAL
34	1d	178	VAL
34	1d	188	LEU
34	1d	190	ASP
34	1d	204	ILE
35	1e	10	MET
35	1e	27	ARG
35	1e	41	VAL
35	1e	67	VAL
35	1e	80	ILE
35	1e	81	GLU
37	1g	10	ARG

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Mol	Chain	Res	Type
37	1g	16	LEU
37	1g	35	LYS
37	1g	57	GLU
37	1g	86	GLN
37	1g	90	GLU
37	1g	111	ARG
37	1g	113	GLU
38	1h	83	ILE
38	1h	99	GLU
38	1h	104	ARG
38	1h	112	LEU
38	1h	133	LEU
39	1i	17	VAL
39	1i	31	GLN
39	1i	48	GLU
39	1i	65	VAL
39	1i	92	TYR
39	1i	128	ARG
40	1j	8	LEU
40	1j	38	ILE
40	1j	49	VAL
41	1k	26	ASN
41	1k	51	LYS
41	1k	80	VAL
42	1l	6	THR
42	1l	37	CYS
42	1l	44	THR
42	1l	67	THR
42	1l	85	ILE
42	1l	96	VAL
42	1l	100	ILE
43	1m	4	ILE
43	1m	60	VAL
43	1m	117	VAL
44	1n	18	VAL
44	1n	33	VAL
44	1n	44	LEU
45	1o	6	GLU
46	1p	1	MET
46	1p	16	HIS
46	1p	20	VAL
46	1p	21	VAL

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Mol	Chain	Res	Type
46	1p	60	LEU
46	1p	62	VAL
46	1p	67	THR
46	1p	74	LEU
47	1q	9	VAL
47	1q	35	VAL
47	1q	36	ILE
47	1q	59	ILE
47	1q	92	ARG
48	1r	30	ASP
48	1r	31	LEU
48	1r	76	LEU
49	1s	7	LYS
49	1s	16	LEU
49	1s	28	LYS
49	1s	41	VAL
49	1s	81	ARG
50	1t	13	LEU
50	1t	84	LEU
51	1u	20	LYS
52	1v	-52	VAL
52	1v	-23	LEU
52	1v	-20	LEU
52	1v	-19	GLU
52	1v	-13	GLN
52	1v	-6	ARG
52	1v	-1	GLU
52	1v	4	ILE
52	1v	10	LYS
52	1v	13	ARG
52	1v	15	ILE
52	1v	25	LYS
52	1v	38	ARG
52	1v	69	VAL
52	1v	70	THR
52	1v	72	CYS
52	1v	75	LYS
52	1v	89	ASP
52	1v	91	THR
52	1v	92	ILE
52	1v	96	ARG
52	1v	98	MET

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Mol	Chain	Res	Type
52	1v	102	ASP
52	1v	112	GLN
52	1v	114	VAL
52	1v	130	VAL
52	1v	132	ARG
52	1v	139	MET
52	1v	146	LEU
52	1v	160	ARG
52	1v	166	LEU
52	1v	170	ARG
52	1v	172	ASP
52	1v	183	MET
52	1v	196	ILE
52	1v	197	ARG
52	1v	203	GLU
52	1v	214	GLU
52	1v	225	GLU
52	1v	233	GLU
52	1v	238	THR
52	1v	252	ASP
52	1v	260	LEU
52	1v	264	LEU
52	1v	279	TYR
52	1v	284	LEU
52	1v	286	ILE
52	1v	289	ILE
52	1v	297	GLU
52	1v	328	ILE
52	1v	344	THR
52	1v	352	VAL
52	1v	355	LEU
52	1v	356	LEU
52	1v	361	ASN
52	1v	362	HIS
52	1v	369	LEU
52	1v	374	LEU
52	1v	377	VAL
52	1v	385	THR
52	1v	399	LEU
52	1v	402	ILE
52	1v	409	ILE
52	1v	418	LYS

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Mol	Chain	Res	Type
52	1v	421	GLN
52	1v	422	GLU
52	1v	431	LEU
52	1v	446	THR
52	1v	468	ARG
52	1v	475	ASN
52	1v	481	VAL
52	1v	484	ARG
52	1v	491	VAL
52	1v	504	ARG
52	1v	512	ILE
52	1v	530	VAL
52	1v	533	VAL
52	1v	579	GLU
52	1v	596	LYS
52	1v	601	ILE
52	1v	605	ILE
52	1v	606	MET
52	1v	614	GLU
52	1v	615	GLU
52	1v	630	GLN
52	1v	641	GLN
52	1v	644	ARG
52	1v	646	PHE
52	1v	647	VAL
52	1v	670	VAL
52	1v	679	VAL
52	1v	681	LYS
52	1v	682	GLN
52	1v	689	LYS
53	1w	1	MET
53	1w	3	LEU
53	1w	6	LEU
53	1w	16	LYS
53	1w	38	LEU
53	1w	43	VAL
53	1w	50	VAL
53	1w	55	ILE
53	1w	59	THR
53	1w	81	LYS
53	1w	85	ASP
53	1w	88	LEU

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Mol	Chain	Res	Type
53	1w	99	LEU
53	1w	101	ILE
53	1w	106	LEU
53	1w	107	THR
53	1w	112	LYS
53	1w	114	LEU
53	1w	127	VAL
53	1w	132	ILE
53	1w	133	ARG
53	1w	154	THR
53	1w	155	LYS
53	1w	161	ILE
53	1w	171	LYS
53	1w	173	ASP
53	1w	174	GLN
3	2D	27	THR
3	2D	71	ASP
3	2D	94	LEU
3	2D	112	GLN
3	2D	113	VAL
3	2D	134	ARG
3	2D	142	VAL
3	2D	165	ILE
3	2D	169	GLU
3	2D	173	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	276	LYS
4	2E	7	VAL
4	2E	9	VAL
4	2E	14	ILE
4	2E	19	ARG
4	2E	21	VAL
4	2E	23	VAL
4	2E	24	THR
4	2E	33	VAL
4	2E	52	LEU
4	2E	75	VAL
4	2E	78	LEU
4	2E	107	THR
4	2E	175	VAL
4	2E	184	VAL

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Mol	Chain	Res	Type
4	2E	195	LEU
4	2E	201	THR
5	2F	84	VAL
5	2F	88	VAL
5	2F	89	VAL
5	2F	103	LYS
5	2F	183	VAL
5	2F	192	LEU
5	2F	201	VAL
6	2G	31	VAL
6	2G	43	LEU
6	2G	49	ASP
6	2G	70	VAL
6	2G	111	LEU
6	2G	174	GLU
7	2H	68	THR
7	2H	71	LEU
7	2H	129	THR
7	2H	171	LEU
8	2N	15	LEU
8	2N	28	THR
8	2N	34	LEU
8	2N	54	VAL
8	2N	58	ASP
8	2N	87	LEU
8	2N	96	GLU
9	2O	24	VAL
9	2O	53	LYS
9	2O	98	VAL
9	2O	108	GLU
10	2P	7	ARG
10	2P	71	VAL
10	2P	87	ASP
10	2P	95	VAL
10	2P	112	LEU
10	2P	148	LEU
11	2Q	1	MET
11	2Q	16	ARG
11	2Q	18	LYS
11	2Q	21	THR
11	2Q	81	VAL
11	2Q	109	VAL

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Mol	Chain	Res	Type
11	2Q	110	THR
12	2R	8	ARG
12	2R	28	LEU
12	2R	29	LEU
12	2R	81	ASP
12	2R	100	LEU
13	2S	8	GLU
13	2S	58	LEU
13	2S	69	VAL
13	2S	85	VAL
13	2S	110	LEU
14	2T	15	VAL
14	2T	40	THR
14	2T	59	THR
14	2T	96	ARG
15	2U	78	THR
16	2V	61	VAL
16	2V	69	LYS
16	2V	72	VAL
16	2V	79	VAL
17	2W	11	ARG
17	2W	19	LEU
17	2W	23	LEU
17	2W	28	SER
17	2W	60	ASN
17	2W	63	ASP
17	2W	94	ASP
17	2W	100	THR
17	2W	102	HIS
17	2W	107	LEU
18	2X	8	ILE
18	2X	27	THR
18	2X	35	THR
18	2X	66	LEU
18	2X	70	LEU
19	2Y	49	VAL
19	2Y	72	VAL
19	2Y	91	GLU
19	2Y	96	ILE
19	2Y	99	CYS
20	2Z	5	LEU
20	2Z	18	LEU

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Mol	Chain	Res	Type
20	2Z	19	ARG
20	2Z	31	ARG
20	2Z	33	LEU
20	2Z	41	LEU
20	2Z	42	VAL
20	2Z	46	LYS
20	2Z	56	VAL
20	2Z	72	ARG
20	2Z	73	GLN
20	2Z	78	LYS
20	2Z	86	VAL
20	2Z	111	VAL
20	2Z	116	VAL
20	2Z	139	VAL
20	2Z	156	LYS
20	2Z	170	THR
20	2Z	175	VAL
20	2Z	180	VAL
21	20	10	THR
21	20	80	HIS
22	21	5	CYS
22	21	30	VAL
22	21	89	GLU
22	21	95	LEU
23	22	53	LEU
24	23	23	LEU
24	23	36	VAL
24	23	54	VAL
24	23	57	GLU
25	24	32	TYR
25	24	35	VAL
25	24	49	PHE
25	24	50	VAL
25	24	58	ARG
25	24	59	PHE
26	25	6	VAL
26	25	16	ARG
26	25	44	THR
26	25	57	VAL
28	27	4	THR
28	27	34	ARG
28	27	39	ARG

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Mol	Chain	Res	Type
28	27	42	LEU
28	27	43	THR
29	28	22	VAL
30	29	7	VAL
30	29	14	CYS
32	2b	7	VAL
32	2b	11	LEU
32	2b	76	GLN
32	2b	94	ASN
32	2b	126	GLU
32	2b	127	ILE
32	2b	162	ILE
32	2b	179	LYS
32	2b	189	ASP
32	2b	200	ILE
33	2c	3	ASN
33	2c	15	THR
33	2c	66	VAL
33	2c	98	ASN
33	2c	124	ILE
33	2c	152	ILE
33	2c	166	GLU
33	2c	191	THR
33	2c	195	VAL
34	2d	5	ILE
34	2d	31	CYS
34	2d	59	ARG
34	2d	67	ILE
34	2d	86	LYS
34	2d	107	ARG
34	2d	135	LEU
34	2d	141	ARG
34	2d	150	GLU
35	2e	13	ILE
35	2e	24	ARG
35	2e	31	LEU
35	2e	41	VAL
35	2e	111	GLU
35	2e	117	ASP
35	2e	125	SER
35	2e	147	ASP
36	2f	19	LEU

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Mol	Chain	Res	Type
36	2f	40	VAL
36	2f	46	ARG
36	2f	61	LEU
36	2f	70	ASP
36	2f	72	VAL
36	2f	75	LEU
37	2g	38	LEU
37	2g	79	ARG
37	2g	113	GLU
38	2h	2	LEU
38	2h	26	VAL
38	2h	39	LEU
38	2h	51	VAL
38	2h	83	ILE
38	2h	112	LEU
38	2h	114	THR
38	2h	129	VAL
39	2i	31	GLN
39	2i	41	VAL
39	2i	50	LEU
39	2i	53	VAL
39	2i	65	VAL
39	2i	89	ASN
39	2i	93	ARG
39	2i	102	LEU
39	2i	108	VAL
40	2j	9	ARG
40	2j	74	ILE
41	2k	114	VAL
41	2k	116	HIS
42	2l	6	THR
42	2l	27	LEU
43	2m	3	ARG
43	2m	15	VAL
43	2m	48	LEU
43	2m	78	ILE
43	2m	116	THR
44	2n	44	LEU
45	2o	7	GLU
45	2o	28	GLN
45	2o	39	LEU
45	2o	70	LEU

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Mol	Chain	Res	Type
45	2o	72	ARG
45	2o	83	GLU
45	2o	87	ILE
46	2p	2	VAL
46	2p	20	VAL
46	2p	25	ARG
46	2p	52	ASP
46	2p	67	THR
47	2q	9	VAL
47	2q	35	VAL
47	2q	74	LEU
47	2q	85	VAL
48	2r	37	VAL
48	2r	47	THR
48	2r	76	LEU
49	2s	33	THR
49	2s	41	VAL
49	2s	47	HIS
49	2s	67	VAL
49	2s	71	LEU
49	2s	77	THR
50	2t	84	LEU
52	2v	-65	LYS
52	2v	-58	LEU
52	2v	-26	GLU
52	2v	-20	LEU
52	2v	-16	ILE
52	2v	-10	ARG
52	2v	-9	LEU
52	2v	-6	ARG
52	2v	4	ILE
52	2v	9	LEU
52	2v	13	ARG
52	2v	15	ILE
52	2v	25	LYS
52	2v	72	CYS
52	2v	75	LYS
52	2v	91	THR
52	2v	92	ILE
52	2v	100	VAL
52	2v	112	GLN
52	2v	114	VAL

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Mol	Chain	Res	Type
52	2v	119	GLU
52	2v	121	VAL
52	2v	132	ARG
52	2v	146	LEU
52	2v	152	THR
52	2v	157	LEU
52	2v	160	ARG
52	2v	163	VAL
52	2v	165	GLN
52	2v	166	LEU
52	2v	170	ARG
52	2v	172	ASP
52	2v	180	VAL
52	2v	196	ILE
52	2v	198	GLU
52	2v	199	ILE
52	2v	203	GLU
52	2v	216	LEU
52	2v	225	GLU
52	2v	226	ASN
52	2v	235	GLU
52	2v	238	THR
52	2v	240	GLU
52	2v	260	LEU
52	2v	264	LEU
52	2v	286	ILE
52	2v	290	LYS
52	2v	298	VAL
52	2v	312	LEU
52	2v	315	LYS
52	2v	328	ILE
52	2v	334	THR
52	2v	336	THR
52	2v	344	THR
52	2v	352	VAL
52	2v	354	ARG
52	2v	362	HIS
52	2v	373	ASP
52	2v	374	LEU
52	2v	377	VAL
52	2v	381	LYS
52	2v	397	VAL

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Mol	Chain	Res	Type
52	2v	398	ILE
52	2v	402	ILE
52	2v	403	GLU
52	2v	406	GLU
52	2v	408	VAL
52	2v	418	LYS
52	2v	422	GLU
52	2v	437	THR
52	2v	446	THR
52	2v	473	ASP
52	2v	484	ARG
52	2v	485	GLU
52	2v	488	THR
52	2v	504	ARG
52	2v	506	GLN
52	2v	512	ILE
52	2v	517	LEU
52	2v	530	VAL
52	2v	533	VAL
52	2v	569	ASP
52	2v	579	GLU
52	2v	605	ILE
52	2v	616	TYR
52	2v	631	ILE
52	2v	634	MET
52	2v	647	VAL
52	2v	651	GLU
52	2v	660	ARG
52	2v	670	VAL
52	2v	678	GLU
52	2v	679	VAL
52	2v	681	LYS
52	2v	683	VAL
52	2v	689	LYS
53	2w	6	LEU
53	2w	9	GLU
53	2w	16	LYS
53	2w	29	ARG
53	2w	32	ARG
53	2w	34	ASN
53	2w	52	LEU
53	2w	62	ASP

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Mol	Chain	Res	Type
53	2w	66	LEU
53	2w	73	GLN
53	2w	84	ARG
53	2w	91	ASN
53	2w	113	ASP
53	2w	114	LEU
53	2w	127	VAL
53	2w	132	ILE
53	2w	137	LEU
53	2w	152	ASP
53	2w	154	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (158) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	96	HIS
3	1D	116	GLN
3	1D	126	GLN
3	1D	220	HIS
3	1D	231	HIS
4	1E	48	GLN
4	1E	137	HIS
4	1E	180	ASN
5	1F	69	HIS
5	1F	75	HIS
5	1F	160	ASN
5	1F	204	ASN
6	1G	40	ASN
6	1G	58	GLN
10	1P	27	HIS
11	1Q	12	GLN
11	1Q	123	HIS
12	1R	13	HIS
12	1R	50	HIS
12	1R	61	HIS
13	1S	61	ASN
14	1T	43	GLN
15	1U	94	ASN
17	1W	60	ASN
18	1X	31	HIS
19	1Y	43	ASN

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Mol	Chain	Res	Type
20	1Z	85	HIS
20	1Z	118	GLN
20	1Z	121	HIS
22	11	56	GLN
24	13	32	GLN
26	15	23	HIS
27	16	49	HIS
33	1c	123	GLN
33	1c	176	HIS
34	1d	160	GLN
34	1d	161	ASN
35	1e	56	GLN
35	1e	78	HIS
36	1f	94	GLN
37	1g	13	GLN
37	1g	28	ASN
37	1g	64	GLN
37	1g	68	ASN
37	1g	86	GLN
38	1h	78	GLN
39	1i	73	GLN
39	1i	124	GLN
42	1l	99	HIS
45	1o	46	HIS
45	1o	62	GLN
46	1p	65	GLN
47	1q	26	GLN
49	1s	23	ASN
49	1s	47	HIS
50	1t	16	HIS
52	1v	-50	GLN
52	1v	154	GLN
52	1v	165	GLN
52	1v	208	GLN
52	1v	421	GLN
52	1v	475	ASN
52	1v	641	GLN
52	1v	675	HIS
52	1v	677	GLN
52	1v	684	GLN
53	1w	24	ASN
53	1w	74	ASN

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Mol	Chain	Res	Type
53	1w	174	GLN
3	2D	203	ASN
3	2D	231	HIS
4	2E	121	ASN
4	2E	129	HIS
4	2E	135	HIS
4	2E	159	HIS
4	2E	192	ASN
5	2F	40	GLN
5	2F	69	HIS
5	2F	203	GLN
6	2G	123	ASN
6	2G	132	ASN
7	2H	61	HIS
7	2H	143	GLN
8	2N	94	HIS
9	2O	5	GLN
11	2Q	57	HIS
11	2Q	89	ASN
12	2R	3	HIS
12	2R	13	HIS
12	2R	24	GLN
12	2R	31	HIS
12	2R	50	HIS
12	2R	71	GLN
13	2S	38	GLN
14	2T	43	GLN
16	2V	80	GLN
17	2W	60	ASN
20	2Z	50	GLN
20	2Z	73	GLN
22	21	47	GLN
22	21	56	GLN
23	22	47	ASN
23	22	56	GLN
24	23	19	GLN
26	25	22	HIS
28	27	6	GLN
30	29	20	HIS
30	29	34	GLN
32	2b	76	GLN
32	2b	78	GLN

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Mol	Chain	Res	Type
32	2b	94	ASN
32	2b	140	HIS
32	2b	212	GLN
33	2c	31	HIS
34	2d	77	ASN
34	2d	119	GLN
34	2d	123	HIS
34	2d	125	HIS
34	2d	199	ASN
35	2e	73	ASN
35	2e	78	HIS
36	2f	18	GLN
36	2f	32	ASN
36	2f	73	ASN
37	2g	28	ASN
37	2g	37	ASN
37	2g	64	GLN
37	2g	106	GLN
41	2k	93	GLN
43	2m	77	ASN
43	2m	106	ASN
45	2o	28	GLN
45	2o	46	HIS
45	2o	53	HIS
46	2p	16	HIS
46	2p	76	GLN
49	2s	47	HIS
50	2t	26	ASN
52	2v	-50	GLN
52	2v	-13	GLN
52	2v	77	HIS
52	2v	208	GLN
52	2v	213	HIS
52	2v	426	GLN
52	2v	448	GLN
52	2v	475	ASN
52	2v	506	GLN
52	2v	527	ASN
52	2v	625	ASN
52	2v	641	GLN
52	2v	675	HIS
53	2w	15	GLN

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Mol	Chain	Res	Type
53	2w	23	HIS
53	2w	24	ASN
53	2w	34	ASN
53	2w	148	HIS
53	2w	174	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2864/2915 (98%)	487 (17%)	28 (0%)
1	2A	2791/2915 (95%)	494 (17%)	21 (0%)
2	1B	119/121 (98%)	15 (12%)	0
2	2B	118/121 (97%)	24 (20%)	0
31	1a	1495/1521 (98%)	231 (15%)	0
31	2a	1501/1521 (98%)	247 (16%)	0
54	1x	72/76 (94%)	31 (43%)	0
54	1y	72/76 (94%)	17 (23%)	0
54	2x	72/76 (94%)	29 (40%)	0
54	2y	72/76 (94%)	19 (26%)	0
55	1z	9/21 (42%)	5 (55%)	0
55	2z	9/21 (42%)	6 (66%)	0
All	All	9194/9460 (97%)	1605 (17%)	49 (0%)

All (1605) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	13	A
1	1A	15	G
1	1A	27	G
1	1A	34	C
1	1A	37	C
1	1A	45	C
1	1A	51	G
1	1A	55	G
1	1A	58	G
1	1A	61	G
1	1A	63	U
1	1A	64	A
1	1A	71	A
1	1A	72	U

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Mol	Chain	Res	Type
1	1A	74	A
1	1A	75	G
1	1A	84	A
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	131	G
1	1A	173	G
1	1A	182	A
1	1A	196	A
1	1A	199	A
1	1A	201	C
1	1A	204	A
1	1A	205	G
1	1A	213	A
1	1A	214	G
1	1A	215	G
1	1A	216	A
1	1A	222	A
1	1A	225	A
1	1A	228	A
1	1A	229	A
1	1A	230	U
1	1A	233	A
1	1A	248	G
1	1A	261	G
1	1A	264	C
1	1A	266	G
1	1A	269	U
1	1A	271(J)	C
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	271(S)	G
1	1A	272(B)	G
1	1A	275	G
1	1A	279	C
1	1A	311	A
1	1A	317	G
1	1A	325	G
1	1A	329	G

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Mol	Chain	Res	Type
1	1A	330	A
1	1A	331	A
1	1A	352	G
1	1A	353	G
1	1A	362	U
1	1A	363	G
1	1A	371	A
1	1A	372	G
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	411	G
1	1A	428	A
1	1A	444	C
1	1A	448	U
1	1A	456	C
1	1A	457	A
1	1A	471	A
1	1A	481	G
1	1A	494	G
1	1A	504	U
1	1A	505	A
1	1A	509	C
1	1A	513	A
1	1A	528	A
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	536	A
1	1A	545	G
1	1A	549	G
1	1A	556	G
1	1A	563	G
1	1A	564	C
1	1A	566	U
1	1A	573	G
1	1A	575	A
1	1A	584	C
1	1A	603	A
1	1A	604	G
1	1A	607	U

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Mol	Chain	Res	Type
1	1A	614(A)	U
1	1A	614(B)	G
1	1A	615	G
1	1A	627	A
1	1A	632	A
1	1A	634	C
1	1A	637	A
1	1A	646	A
1	1A	652(T)	C
1	1A	654	A
1	1A	669	G
1	1A	670	A
1	1A	675	A
1	1A	686	G
1	1A	696	G
1	1A	730	C
1	1A	758	C
1	1A	764	A
1	1A	765	G
1	1A	775	G
1	1A	776	G
1	1A	777	A
1	1A	782	A
1	1A	784	A
1	1A	785	G
1	1A	788	A
1	1A	789	A
1	1A	792	G
1	1A	796	C
1	1A	805	G
1	1A	811	U
1	1A	812	C
1	1A	819	A
1	1A	827	U
1	1A	828	U
1	1A	831	G
1	1A	839	U
1	1A	859	G
1	1A	860	U
1	1A	876	C
1	1A	880	G
1	1A	884	C

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Mol	Chain	Res	Type
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	889	C
1	1A	890	A
1	1A	896	A
1	1A	897	C
1	1A	898	C
1	1A	900	A
1	1A	907	U
1	1A	910	A
1	1A	914	C
1	1A	915	C
1	1A	919	G
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	957	A
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	980	A
1	1A	983	A
1	1A	995	C
1	1A	996	A
1	1A	1005	C
1	1A	1012	U
1	1A	1013	C
1	1A	1021	A
1	1A	1022	G
1	1A	1023	U
1	1A	1026	U
1	1A	1033	U
1	1A	1038	C
1	1A	1041	C
1	1A	1044	G
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A

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Mol	Chain	Res	Type
1	1A	1052	C
1	1A	1054	A
1	1A	1055	G
1	1A	1058	G
1	1A	1059	G
1	1A	1063	G
1	1A	1064	C
1	1A	1068	G
1	1A	1071	G
1	1A	1073	A
1	1A	1074	G
1	1A	1075	C
1	1A	1076	C
1	1A	1078	U
1	1A	1079	C
1	1A	1083	U
1	1A	1085	A
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1094	U
1	1A	1101	U
1	1A	1111	A
1	1A	1112	G
1	1A	1116	C
1	1A	1126	A
1	1A	1128	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1139	G
1	1A	1143	A
1	1A	1155	A
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1210	A
1	1A	1211	U

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Mol	Chain	Res	Type
1	1A	1220	A
1	1A	1236	G
1	1A	1237	A
1	1A	1240	U
1	1A	1244	G
1	1A	1253	A
1	1A	1254	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1276	A
1	1A	1281	G
1	1A	1300	U
1	1A	1301	A
1	1A	1309	G
1	1A	1313	U
1	1A	1320	C
1	1A	1321	A
1	1A	1343	G
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1373	A
1	1A	1378	A
1	1A	1380	G
1	1A	1384	A
1	1A	1385	G
1	1A	1395	A
1	1A	1396	U
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1450	G
1	1A	1455	G
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G

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Mol	Chain	Res	Type
1	1A	1493	C
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1514	U
1	1A	1547	C
1	1A	1554	A
1	1A	1558	A
1	1A	1565	C
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1580	A
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1613	G
1	1A	1616	A
1	1A	1639	U
1	1A	1646	C
1	1A	1647	G
1	1A	1648	C
1	1A	1654	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1722	A
1	1A	1739	U
1	1A	1746	G
1	1A	1763	G
1	1A	1764	G
1	1A	1769	G
1	1A	1773	A
1	1A	1780	A
1	1A	1791	A
1	1A	1800	C
1	1A	1816	G
1	1A	1821	A
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A

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Mol	Chain	Res	Type
1	1A	1877	A
1	1A	1897	G
1	1A	1900	A
1	1A	1906	G
1	1A	1912	A
1	1A	1913	A
1	1A	1914	C
1	1A	1918	A
1	1A	1927	A
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1940	U
1	1A	1955	U
1	1A	1963	U
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	2013	A
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	2039	C
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	2078	C
1	1A	2093	G
1	1A	2111	C
1	1A	2113	U
1	1A	2116	G
1	1A	2118	U

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Mol	Chain	Res	Type
1	1A	2121	G
1	1A	2122	U
1	1A	2125	G
1	1A	2126	A
1	1A	2127	G
1	1A	2130	U
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2140	C
1	1A	2142	C
1	1A	2144	U
1	1A	2146	C
1	1A	2147	G
1	1A	2150	U
1	1A	2151	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2165	G
1	1A	2166	G
1	1A	2167	U
1	1A	2168	G
1	1A	2169	A
1	1A	2171	A
1	1A	2172	U
1	1A	2173	A
1	1A	2181	G
1	1A	2182	G
1	1A	2184	G
1	1A	2185	C
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2219	G
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G

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Mol	Chain	Res	Type
1	1A	2278	A
1	1A	2279	G
1	1A	2283	C
1	1A	2287	A
1	1A	2288	A
1	1A	2299	G
1	1A	2305	A
1	1A	2307	G
1	1A	2308	G
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2341	G
1	1A	2347	C
1	1A	2350	C
1	1A	2358	G
1	1A	2361	A
1	1A	2383	G
1	1A	2385	C
1	1A	2391	G
1	1A	2406	U
1	1A	2410	G
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2434	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2468	G
1	1A	2470	G
1	1A	2474	C
1	1A	2476	A
1	1A	2482	G
1	1A	2484	G
1	1A	2490	G
1	1A	2491	U
1	1A	2495	G
1	1A	2502	G
1	1A	2503	2MA
1	1A	2504	U

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Mol	Chain	Res	Type
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2529	G
1	1A	2554	U
1	1A	2562	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2581	G
1	1A	2585	U
1	1A	2586	C
1	1A	2601	C
1	1A	2602	A
1	1A	2603	G
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2615	U
1	1A	2628	C
1	1A	2629	A
1	1A	2630	G
1	1A	2641	G
1	1A	2654	A
1	1A	2663	G
1	1A	2689	U
1	1A	2690	C
1	1A	2691	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2726	U
1	1A	2730	C
1	1A	2733	A
1	1A	2757	A
1	1A	2758	A
1	1A	2764	A
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2790	A

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Mol	Chain	Res	Type
1	1A	2791	C
1	1A	2802	G
1	1A	2805	G
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2834	G
1	1A	2872	G
1	1A	2892	A
1	1A	2894	G
2	1B	2	C
2	1B	5	C
2	1B	13	A
2	1B	33	G
2	1B	35	U
2	1B	42	C
2	1B	44	G
2	1B	45	A
2	1B	56	G
2	1B	73	A
2	1B	84	C
2	1B	85	G
2	1B	106	G
2	1B	110	G
2	1B	120	A
31	1a	9	G
31	1a	32	A
31	1a	39	G
31	1a	47	C
31	1a	48	C
31	1a	50	A
31	1a	51	A
31	1a	61	G
31	1a	79	G
31	1a	91	C
31	1a	98	G
31	1a	101	A
31	1a	116	A
31	1a	121	C
31	1a	131	C
31	1a	145	G
31	1a	163	C

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Mol	Chain	Res	Type
31	1a	174	C
31	1a	182	U
31	1a	189	G
31	1a	189(A)	C
31	1a	189(F)	U
31	1a	195	A
31	1a	197	A
31	1a	203	U
31	1a	204	U
31	1a	216	G
31	1a	217	C
31	1a	220	G
31	1a	247	G
31	1a	251	G
31	1a	266	G
31	1a	267	C
31	1a	279	A
31	1a	289	G
31	1a	321	A
31	1a	328	C
31	1a	332	G
31	1a	343	U
31	1a	345	C
31	1a	347	G
31	1a	351	G
31	1a	352	C
31	1a	353	A
31	1a	354	G
31	1a	356	A
31	1a	367	U
31	1a	372	C
31	1a	373	A
31	1a	384	G
31	1a	397	A
31	1a	398	C
31	1a	412	A
31	1a	423	G
31	1a	424	G
31	1a	429	U
31	1a	430	A
31	1a	439	A
31	1a	441	A

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Mol	Chain	Res	Type
31	1a	442	C
31	1a	452	A
31	1a	461	A
31	1a	470	C
31	1a	485	G
31	1a	496	A
31	1a	498	U
31	1a	505	G
31	1a	509	A
31	1a	510	A
31	1a	511	C
31	1a	518	C
31	1a	519	C
31	1a	531	U
31	1a	532	A
31	1a	547	A
31	1a	559	A
31	1a	561	U
31	1a	562	C
31	1a	564	C
31	1a	572	A
31	1a	573	A
31	1a	576	G
31	1a	577	G
31	1a	596	C
31	1a	630	G
31	1a	634	C
31	1a	641	U
31	1a	653	A
31	1a	665	A
31	1a	688	G
31	1a	695	A
31	1a	721	G
31	1a	723	U
31	1a	731	G
31	1a	734	G
31	1a	749	C
31	1a	755	G
31	1a	767	A
31	1a	777	A
31	1a	793	U
31	1a	794	A

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Mol	Chain	Res	Type
31	1a	816	A
31	1a	817	C
31	1a	821	G
31	1a	828	A
31	1a	836	G
31	1a	840	C
31	1a	841	U
31	1a	851	G
31	1a	859	A
31	1a	866	C
31	1a	902	G
31	1a	914	A
31	1a	926	G
31	1a	927	G
31	1a	934	C
31	1a	952	U
31	1a	960	U
31	1a	961	U
31	1a	968	A
31	1a	969	A
31	1a	971	G
31	1a	972	C
31	1a	974	A
31	1a	975	A
31	1a	976	G
31	1a	977	A
31	1a	982	U
31	1a	992	U
31	1a	993	G
31	1a	1000	U
31	1a	1003	G
31	1a	1005	A
31	1a	1006	C
31	1a	1020	U
31	1a	1022	G
31	1a	1025	U
31	1a	1026	G
31	1a	1027	C
31	1a	1029	C
31	1a	1030(A)	G
31	1a	1031	G
31	1a	1033	G

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Mol	Chain	Res	Type
31	1a	1037	C
31	1a	1038	C
31	1a	1039	C
31	1a	1044	A
31	1a	1050	G
31	1a	1054	C
31	1a	1055	A
31	1a	1065	U
31	1a	1066	C
31	1a	1068	G
31	1a	1081	G
31	1a	1084	G
31	1a	1094	G
31	1a	1095	U
31	1a	1101	A
31	1a	1108	G
31	1a	1122	U
31	1a	1124	G
31	1a	1125	U
31	1a	1127	G
31	1a	1134	G
31	1a	1137	C
31	1a	1138	G
31	1a	1139	G
31	1a	1146	A
31	1a	1152	A
31	1a	1159	U
31	1a	1184	G
31	1a	1186	G
31	1a	1187	G
31	1a	1196	U
31	1a	1197	G
31	1a	1200	C
31	1a	1202	G
31	1a	1212	U
31	1a	1213	A
31	1a	1220	G
31	1a	1225	A
31	1a	1226	C
31	1a	1227	A
31	1a	1236	A
31	1a	1238	A

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Mol	Chain	Res	Type
31	1a	1241	G
31	1a	1256	A
31	1a	1257	U
31	1a	1258	G
31	1a	1260	C
31	1a	1268	A
31	1a	1270	C
31	1a	1278	U
31	1a	1279	A
31	1a	1280	A
31	1a	1286	A
31	1a	1287	A
31	1a	1299	A
31	1a	1300	G
31	1a	1305	G
31	1a	1320	C
31	1a	1336	C
31	1a	1346	A
31	1a	1347	G
31	1a	1353	G
31	1a	1358	U
31	1a	1363	C
31	1a	1364	U
31	1a	1370	G
31	1a	1378	C
31	1a	1398	A
31	1a	1402	4OC
31	1a	1419	G
31	1a	1442	G
31	1a	1442(A)	G
31	1a	1446	U
31	1a	1447	A
31	1a	1452	C
31	1a	1456	G
31	1a	1487	G
31	1a	1491	G
31	1a	1492	A
31	1a	1493	A
31	1a	1494	G
31	1a	1499	A
31	1a	1503	A
31	1a	1504	G

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Mol	Chain	Res	Type
31	1a	1506	U
31	1a	1517	G
31	1a	1529	G
31	1a	1530	G
54	1x	2	C
54	1x	3	C
54	1x	4	C
54	1x	5	G
54	1x	8	4SU
54	1x	19	G
54	1x	20	U
54	1x	21	A
54	1x	22	G
54	1x	26	A
54	1x	33	U
54	1x	35	A
54	1x	36	A
54	1x	37	MIA
54	1x	38	A
54	1x	42	C
54	1x	44	G
54	1x	45	U
54	1x	46	7MG
54	1x	47	U
54	1x	48	C
54	1x	52	G
54	1x	57	G
54	1x	59	U
54	1x	60	U
54	1x	65	G
54	1x	69	G
54	1x	70	G
54	1x	71	G
54	1x	75	C
54	1x	76	A
54	1y	2	C
54	1y	5	G
54	1y	9	A
54	1y	13	C
54	1y	14	A
54	1y	20	U
54	1y	21	A

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Mol	Chain	Res	Type
54	1y	26	A
54	1y	37	MIA
54	1y	44	G
54	1y	45	U
54	1y	46	7MG
54	1y	47	U
54	1y	48	C
54	1y	49	C
54	1y	59	U
54	1y	60	U
55	1z	13	A
55	1z	15	A
55	1z	19	U
55	1z	20	A
55	1z	21	A
1	2A	12	U
1	2A	14	A
1	2A	15	G
1	2A	27	G
1	2A	34	C
1	2A	35	G
1	2A	45	C
1	2A	49	A
1	2A	50	U
1	2A	51	G
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	90	U
1	2A	98	G
1	2A	100	G
1	2A	102	G
1	2A	118	A
1	2A	120	U
1	2A	125	G
1	2A	139(A)	G
1	2A	154(A)	C
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	196	A

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Mol	Chain	Res	Type
1	2A	199	A
1	2A	201	C
1	2A	204	A
1	2A	205	G
1	2A	216	A
1	2A	222	A
1	2A	228	A
1	2A	229	A
1	2A	233	A
1	2A	248	G
1	2A	249	C
1	2A	266	G
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(B)	G
1	2A	272(I)	U
1	2A	272(J)	C
1	2A	277	C
1	2A	278	A
1	2A	294	A
1	2A	302	C
1	2A	311	A
1	2A	317	G
1	2A	324	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	363(B)	G
1	2A	363(D)	G
1	2A	372	G
1	2A	386	G
1	2A	396	G
1	2A	405	U
1	2A	406	G
1	2A	411	G
1	2A	422	A

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Mol	Chain	Res	Type
1	2A	435	C
1	2A	444	C
1	2A	448	U
1	2A	449	A
1	2A	454	A
1	2A	457	A
1	2A	480	A
1	2A	481	G
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	563	G
1	2A	568	U
1	2A	573	G
1	2A	574	C
1	2A	575	A
1	2A	599	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	610	G
1	2A	614(B)	G
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	632	A
1	2A	634	C
1	2A	637	A
1	2A	645	C
1	2A	651	G
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	668	G
1	2A	669	G
1	2A	675	A
1	2A	686	G
1	2A	717	G

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Mol	Chain	Res	Type
1	2A	726	G
1	2A	730	C
1	2A	753	C
1	2A	764	A
1	2A	771	G
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	783	A
1	2A	784	A
1	2A	785	G
1	2A	789	A
1	2A	792	G
1	2A	793	A
1	2A	801	G
1	2A	805	G
1	2A	812	C
1	2A	819	A
1	2A	825	C
1	2A	827	U
1	2A	829	A
1	2A	831	G
1	2A	843	G
1	2A	846	C
1	2A	847	U
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	869	G
1	2A	874	G
1	2A	875	G
1	2A	879	G
1	2A	880	G
1	2A	884	C
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	894	C
1	2A	895	U

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Mol	Chain	Res	Type
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	915	C
1	2A	917	A
1	2A	932	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	957	A
1	2A	958	U
1	2A	959	A
1	2A	961	C
1	2A	973	A
1	2A	974	G
1	2A	975	C
1	2A	975(A)	G
1	2A	980	A
1	2A	983	A
1	2A	996	A
1	2A	997	G
1	2A	1012	U
1	2A	1013	C
1	2A	1017	G
1	2A	1020	A
1	2A	1022	G
1	2A	1023	U
1	2A	1025	G
1	2A	1033	U
1	2A	1038	C
1	2A	1039	G
1	2A	1043	C
1	2A	1114	G
1	2A	1116	C
1	2A	1125	G
1	2A	1129	A
1	2A	1130	U
1	2A	1132	A

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Mol	Chain	Res	Type
1	2A	1135	C
1	2A	1136	G
1	2A	1139	G
1	2A	1143	A
1	2A	1144	G
1	2A	1169	G
1	2A	1171	G
1	2A	1187	G
1	2A	1188	U
1	2A	1210	A
1	2A	1211	U
1	2A	1212	G
1	2A	1220	A
1	2A	1237	A
1	2A	1250	G
1	2A	1252	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	1313	U
1	2A	1314	C
1	2A	1321	A
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1378	A
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1411	C
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1427	A

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Mol	Chain	Res	Type
1	2A	1428	C
1	2A	1435	G
1	2A	1437	C
1	2A	1445	A
1	2A	1449	A
1	2A	1450	G
1	2A	1455	G
1	2A	1460	A
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1495	A
1	2A	1496	A
1	2A	1497	U
1	2A	1507	A
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1531	C
1	2A	1532	C
1	2A	1533	G
1	2A	1543	C
1	2A	1546	C
1	2A	1558	A
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	1602	U
1	2A	1603	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1640	C
1	2A	1646	C
1	2A	1648	C
1	2A	1654	A
1	2A	1674	G

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Mol	Chain	Res	Type
1	2A	1696	G
1	2A	1698	A
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1740	G
1	2A	1745(A)	C
1	2A	1746	G
1	2A	1756	G
1	2A	1758	G
1	2A	1763	G
1	2A	1764	G
1	2A	1769	G
1	2A	1773	A
1	2A	1778	U
1	2A	1780	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1809	A
1	2A	1813	G
1	2A	1816	G
1	2A	1827	C
1	2A	1835	G
1	2A	1847	A
1	2A	1848	A
1	2A	1877	A
1	2A	1878	G
1	2A	1902	C
1	2A	1912	A
1	2A	1914	C
1	2A	1915	5MU
1	2A	1916	A
1	2A	1917	PSU
1	2A	1918	A
1	2A	1919	A
1	2A	1920	OMC
1	2A	1929	G
1	2A	1930	G
1	2A	1934	C

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Mol	Chain	Res	Type
1	2A	1936	A
1	2A	1955	U
1	2A	1963	U
1	2A	1964	G
1	2A	1965	C
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1984	G
1	2A	1993	U
1	2A	1997	G
1	2A	2023	G
1	2A	2027	G
1	2A	2030	A
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2034	U
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	2093	G
1	2A	2096	U
1	2A	2105	C
1	2A	2108	C
1	2A	2111	C
1	2A	2112	G
1	2A	2116	G
1	2A	2119	A
1	2A	2120	G
1	2A	2122	U
1	2A	2126	A
1	2A	2127	G
1	2A	2129	C
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G

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Mol	Chain	Res	Type
1	2A	2134	A
1	2A	2135	A
1	2A	2136	C
1	2A	2138	C
1	2A	2140	C
1	2A	2142	C
1	2A	2146	C
1	2A	2150	U
1	2A	2156	G
1	2A	2157	G
1	2A	2161	C
1	2A	2165	G
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2172	U
1	2A	2174	C
1	2A	2178	C
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2225	A
1	2A	2238	G
1	2A	2239	G
1	2A	2275	C
1	2A	2279	G
1	2A	2283	C
1	2A	2287	A
1	2A	2291	U
1	2A	2305	A
1	2A	2308	G
1	2A	2311	A
1	2A	2319	G
1	2A	2320	A
1	2A	2325	G
1	2A	2334	G
1	2A	2336	A
1	2A	2347	C
1	2A	2350	C
1	2A	2352	A

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Mol	Chain	Res	Type
1	2A	2371	G
1	2A	2376	A
1	2A	2383	G
1	2A	2385	C
1	2A	2402	C
1	2A	2403	C
1	2A	2406	U
1	2A	2410	G
1	2A	2425	A
1	2A	2427	C
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2447	G
1	2A	2448	A
1	2A	2469	A
1	2A	2474	C
1	2A	2476	A
1	2A	2478	A
1	2A	2490	G
1	2A	2491	U
1	2A	2492	U
1	2A	2502	G
1	2A	2505	G
1	2A	2507	C
1	2A	2518	A
1	2A	2519	U
1	2A	2520	C
1	2A	2525	G
1	2A	2529	G
1	2A	2538	C
1	2A	2554	U
1	2A	2564	A
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2579	C
1	2A	2582	G
1	2A	2585	U

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Mol	Chain	Res	Type
1	2A	2586	C
1	2A	2601	C
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2626	C
1	2A	2629	A
1	2A	2630	G
1	2A	2634	G
1	2A	2646	C
1	2A	2654	A
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2702	U
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2718	G
1	2A	2726	U
1	2A	2733	A
1	2A	2739	U
1	2A	2748	A
1	2A	2751	G
1	2A	2752	C
1	2A	2757	A
1	2A	2764	A
1	2A	2765	A
1	2A	2778	A
1	2A	2789	C
1	2A	2802	G
1	2A	2807	G
1	2A	2808	U
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2823	A
1	2A	2833	G
1	2A	2835	A
1	2A	2836	U

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Mol	Chain	Res	Type
1	2A	2872	G
1	2A	2876	G
1	2A	2880	C
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	8	U
2	2B	13	A
2	2B	16	G
2	2B	20	C
2	2B	24	G
2	2B	30	C
2	2B	42	C
2	2B	53	A
2	2B	63	G
2	2B	66	A
2	2B	67	G
2	2B	72	G
2	2B	73	A
2	2B	74	U
2	2B	75	G
2	2B	85	G
2	2B	88	C
2	2B	89	G
2	2B	106	G
2	2B	108	U
2	2B	110	G
2	2B	112	U
2	2B	114	C
31	2a	9	G
31	2a	32	A
31	2a	39	G
31	2a	47	C
31	2a	48	C
31	2a	49	U
31	2a	50	A
31	2a	51	A
31	2a	52	G
31	2a	54	C
31	2a	66	G
31	2a	78	G
31	2a	89	C

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Mol	Chain	Res	Type
31	2a	101	A
31	2a	116	A
31	2a	121	C
31	2a	129(A)	G
31	2a	131	C
31	2a	143	A
31	2a	163	C
31	2a	174	C
31	2a	182	U
31	2a	189(E)	U
31	2a	195	A
31	2a	197	A
31	2a	199	G
31	2a	202	U
31	2a	203	U
31	2a	216	G
31	2a	220	G
31	2a	247	G
31	2a	251	G
31	2a	266	G
31	2a	267	C
31	2a	279	A
31	2a	289	G
31	2a	301	G
31	2a	305	G
31	2a	321	A
31	2a	328	C
31	2a	332	G
31	2a	351	G
31	2a	352	C
31	2a	353	A
31	2a	354	G
31	2a	367	U
31	2a	372	C
31	2a	373	A
31	2a	384	G
31	2a	397	A
31	2a	398	C
31	2a	406	G
31	2a	412	A
31	2a	421	U
31	2a	424	G

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Mol	Chain	Res	Type
31	2a	429	U
31	2a	439	A
31	2a	442	C
31	2a	452	A
31	2a	454	C
31	2a	470	C
31	2a	485	G
31	2a	496	A
31	2a	498	U
31	2a	505	G
31	2a	507	C
31	2a	508	C
31	2a	509	A
31	2a	510	A
31	2a	511	C
31	2a	518	C
31	2a	527	7MG
31	2a	531	U
31	2a	532	A
31	2a	535	A
31	2a	536	C
31	2a	547	A
31	2a	559	A
31	2a	560	U
31	2a	561	U
31	2a	564	C
31	2a	572	A
31	2a	573	A
31	2a	576	G
31	2a	577	G
31	2a	596	C
31	2a	618	C
31	2a	630	G
31	2a	632	A
31	2a	641	U
31	2a	653	A
31	2a	665	A
31	2a	686	U
31	2a	687	A
31	2a	688	G
31	2a	731	G
31	2a	749	C

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Mol	Chain	Res	Type
31	2a	755	G
31	2a	777	A
31	2a	790	A
31	2a	793	U
31	2a	794	A
31	2a	816	A
31	2a	817	C
31	2a	821	G
31	2a	828	A
31	2a	840	C
31	2a	841	U
31	2a	848	C
31	2a	853	G
31	2a	859	A
31	2a	872	A
31	2a	873	A
31	2a	889	A
31	2a	900	A
31	2a	902	G
31	2a	914	A
31	2a	927	G
31	2a	931	C
31	2a	932	C
31	2a	934	C
31	2a	935	A
31	2a	960	U
31	2a	961	U
31	2a	968	A
31	2a	969	A
31	2a	971	G
31	2a	974	A
31	2a	975	A
31	2a	976	G
31	2a	977	A
31	2a	992	U
31	2a	993	G
31	2a	997	U
31	2a	1001(A)	G
31	2a	1002	G
31	2a	1003	G
31	2a	1004	A
31	2a	1005	A

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Mol	Chain	Res	Type
31	2a	1006	C
31	2a	1007	C
31	2a	1009	G
31	2a	1022	G
31	2a	1023	G
31	2a	1025	U
31	2a	1026	G
31	2a	1027	C
31	2a	1030	C
31	2a	1030(A)	G
31	2a	1031	G
31	2a	1033	G
31	2a	1036	G
31	2a	1038	C
31	2a	1039	C
31	2a	1040	U
31	2a	1045	C
31	2a	1051	C
31	2a	1053	G
31	2a	1065	U
31	2a	1066	C
31	2a	1068	G
31	2a	1070	U
31	2a	1077	G
31	2a	1081	G
31	2a	1094	G
31	2a	1096	C
31	2a	1098	C
31	2a	1101	A
31	2a	1117	G
31	2a	1122	U
31	2a	1125	U
31	2a	1129	C
31	2a	1137	C
31	2a	1138	G
31	2a	1139	G
31	2a	1140	C
31	2a	1146	A
31	2a	1152	A
31	2a	1159	U
31	2a	1160	G
31	2a	1166	G

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Mol	Chain	Res	Type
31	2a	1172	C
31	2a	1182	G
31	2a	1184	G
31	2a	1196	U
31	2a	1197	G
31	2a	1202	G
31	2a	1211	U
31	2a	1212	U
31	2a	1213	A
31	2a	1215	G
31	2a	1226	C
31	2a	1227	A
31	2a	1236	A
31	2a	1238	A
31	2a	1256	A
31	2a	1257	U
31	2a	1258	G
31	2a	1260	C
31	2a	1263	C
31	2a	1264	C
31	2a	1268	A
31	2a	1270	C
31	2a	1272	G
31	2a	1275	A
31	2a	1279	A
31	2a	1280	A
31	2a	1287	A
31	2a	1303	C
31	2a	1320	C
31	2a	1323	G
31	2a	1331	G
31	2a	1340	A
31	2a	1346	A
31	2a	1347	G
31	2a	1353	G
31	2a	1363	C
31	2a	1364	U
31	2a	1381	U
31	2a	1386	G
31	2a	1398	A
31	2a	1402	4OC
31	2a	1419	G

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Mol	Chain	Res	Type
31	2a	1442	G
31	2a	1442(A)	G
31	2a	1442(B)	A
31	2a	1446	U
31	2a	1447	A
31	2a	1452	C
31	2a	1456	G
31	2a	1475	G
31	2a	1487	G
31	2a	1492	A
31	2a	1493	A
31	2a	1494	G
31	2a	1495	U
31	2a	1496	C
31	2a	1503	A
31	2a	1504	G
31	2a	1506	U
31	2a	1517	G
31	2a	1519	MA6
31	2a	1520	G
31	2a	1529	G
31	2a	1530	G
31	2a	1531	A
31	2a	1532	U
54	2x	3	C
54	2x	4	C
54	2x	5	G
54	2x	8	4SU
54	2x	19	G
54	2x	20	U
54	2x	21	A
54	2x	22	G
54	2x	26	A
54	2x	35	A
54	2x	36	A
54	2x	37	MIA
54	2x	39	PSU
54	2x	40	C
54	2x	41	C
54	2x	42	C
54	2x	44	G
54	2x	45	U

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Mol	Chain	Res	Type
54	2x	46	7MG
54	2x	47	U
54	2x	48	C
54	2x	59	U
54	2x	60	U
54	2x	65	G
54	2x	69	G
54	2x	70	G
54	2x	71	G
54	2x	75	C
54	2x	76	A
54	2y	2	C
54	2y	3	C
54	2y	5	G
54	2y	9	A
54	2y	10	G
54	2y	13	C
54	2y	14	A
54	2y	19	G
54	2y	20	U
54	2y	21	A
54	2y	26	A
54	2y	37	MIA
54	2y	44	G
54	2y	45	U
54	2y	46	7MG
54	2y	47	U
54	2y	48	C
54	2y	59	U
54	2y	60	U
55	2z	13	A
55	2z	15	A
55	2z	18	C
55	2z	19	U
55	2z	20	A
55	2z	21	A

All (49) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	195	A
1	1A	196	A

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Mol	Chain	Res	Type
1	1A	214	G
1	1A	266	G
1	1A	271(K)	U
1	1A	278	A
1	1A	548	A
1	1A	764	A
1	1A	859	G
1	1A	895	U
1	1A	960	A
1	1A	1047	G
1	1A	1065	U
1	1A	1067	A
1	1A	1174	A
1	1A	1176	G
1	1A	1210	A
1	1A	1275	A
1	1A	1379	A
1	1A	1442	G
1	1A	1508	A
1	1A	1653	G
1	1A	1992	G
1	1A	2134	A
1	1A	2181	G
1	1A	2183	C
1	1A	2439	A
1	1A	2689	U
1	2A	228	A
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	528	A
1	2A	752	A
1	2A	856	C
1	2A	900	A
1	2A	1187	G
1	2A	1210	A
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1530	C
1	2A	1653	G
1	2A	1911	PSU

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Mol	Chain	Res	Type
1	2A	1992	G
1	2A	2119	A
1	2A	2351	G
1	2A	2689	U
1	2A	2756	U

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

76 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	$\#\|Z\| > 2$
31	PSU	2a	516	31,56	18,21,22	1.34	2 (11%)	21,30,33	1.97	3 (14%)
54	4SU	2x	8	54	18,21,22	1.75	4 (22%)	25,30,33	2.28	4 (16%)
31	2MG	2a	1207	31	23,26,27	1.25	3 (13%)	33,38,41	2.22	7 (21%)
31	UR3	1a	1498	31,56	19,22,23	1.04	2 (10%)	26,32,35	1.70	4 (15%)
31	7MG	1a	527	31,56	23,26,27	1.30	3 (13%)	27,39,42	2.61	7 (25%)
1	OMG	2A	2251	1,56	23,26,27	1.24	3 (13%)	32,38,41	1.97	6 (18%)
54	PSU	1y	32	54	18,21,22	1.37	2 (11%)	21,30,33	1.86	3 (14%)
1	PSU	1A	1917	1	18,21,22	1.42	2 (11%)	21,30,33	2.07	4 (19%)
1	2MU	1A	2552	1,56	19,22,24	1.32	4 (21%)	25,31,36	2.04	4 (16%)
54	PSU	2x	55	54	18,21,22	1.37	2 (11%)	21,30,33	2.06	4 (19%)
31	5MC	2a	1400	31	19,22,23	1.54	2 (10%)	26,32,35	1.11	3 (11%)
1	2MA	1A	2503	1,56	22,25,26	1.54	4 (18%)	32,37,40	2.36	8 (25%)
31	7MG	2a	527	31	23,26,27	1.34	3 (13%)	27,39,42	2.59	7 (25%)
31	5MC	1a	1400	31	19,22,23	1.67	3 (15%)	26,32,35	1.14	2 (7%)
31	MA6	1a	1518	31	23,26,27	1.51	5 (21%)	33,38,41	2.23	13 (39%)
31	4OC	1a	1402	31	20,23,24	0.77	0	25,32,35	0.99	1 (4%)
1	2MA	2A	2503	1,56	22,25,26	1.46	5 (22%)	32,37,40	2.25	8 (25%)
1	OMC	2A	1920	1	19,22,23	0.77	0	25,31,34	0.82	0
31	5MC	1a	967	31	19,22,23	1.64	2 (10%)	26,32,35	1.18	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
54	PSU	2x	39	54	18,21,22	1.31	2 (11%)	21,30,33	2.23	5 (23%)
54	5MU	2y	54	54	19,22,23	1.43	5 (26%)	27,32,35	2.12	6 (22%)
1	PSU	2A	1917	1,56	18,21,22	1.46	2 (11%)	21,30,33	1.88	4 (19%)
1	5MU	1A	1939	1	19,22,23	1.49	5 (26%)	27,32,35	2.13	7 (25%)
31	MA6	2a	1518	31,56	23,26,27	1.51	4 (17%)	33,38,41	2.38	12 (36%)
54	5MU	1x	54	54	19,22,23	1.37	5 (26%)	27,32,35	2.26	6 (22%)
42	0TD	1l	92	42	8,9,10	4.48	2 (25%)	6,11,13	4.73	2 (33%)
31	M2G	2a	966	31	24,27,28	1.33	4 (16%)	33,40,43	1.89	6 (18%)
31	M2G	1a	966	31	24,27,28	1.34	4 (16%)	33,40,43	1.89	6 (18%)
42	0TD	2l	92	42	8,9,10	4.55	2 (25%)	6,11,13	1.98	2 (33%)
1	5MC	1A	1942	1	19,22,23	1.67	3 (15%)	26,32,35	1.35	5 (19%)
1	PSU	2A	2605	1,56	18,21,22	1.39	2 (11%)	21,30,33	2.32	4 (19%)
31	4OC	2a	1402	31	20,23,24	0.79	0	25,32,35	1.02	1 (4%)
54	7MG	1x	46	54	23,26,27	1.28	3 (13%)	27,39,42	2.71	7 (25%)
54	PSU	2y	55	54	18,21,22	1.34	2 (11%)	21,30,33	2.07	3 (14%)
31	MA6	2a	1519	31	23,26,27	1.58	4 (17%)	33,38,41	2.33	12 (36%)
31	5MC	1a	1407	31	19,22,23	1.62	2 (10%)	26,32,35	1.03	1 (3%)
1	5MC	1A	1962	1	19,22,23	1.55	2 (10%)	26,32,35	1.17	3 (11%)
31	PSU	1a	516	31,56	18,21,22	1.38	3 (16%)	21,30,33	1.93	5 (23%)
54	PSU	2x	32	56,54	18,21,22	1.37	2 (11%)	21,30,33	2.10	5 (23%)
54	MIA	1x	37	54	21,24,32	1.65	3 (14%)	30,35,47	2.06	8 (26%)
54	PSU	2y	39	54	18,21,22	1.35	2 (11%)	21,30,33	1.95	3 (14%)
54	7MG	2y	46	54	23,26,27	1.32	4 (17%)	27,39,42	2.67	7 (25%)
54	5MU	1y	54	54	19,22,23	1.46	5 (26%)	27,32,35	2.13	7 (25%)
54	5MU	2x	54	54	19,22,23	1.45	6 (31%)	27,32,35	1.96	5 (18%)
1	PSU	1A	1911	1	18,21,22	1.39	4 (22%)	21,30,33	1.88	4 (19%)
54	4SU	2y	8	54	18,21,22	1.84	4 (22%)	25,30,33	2.12	4 (16%)
54	PSU	1x	39	54	18,21,22	1.44	3 (16%)	21,30,33	2.01	4 (19%)
54	4SU	1x	8	56,54	18,21,22	1.69	4 (22%)	25,30,33	2.47	8 (32%)
31	5MC	1a	1404	31	19,22,23	1.71	3 (15%)	26,32,35	1.22	4 (15%)
31	5MC	2a	1407	31,56	19,22,23	1.58	2 (10%)	26,32,35	1.06	2 (7%)
54	MIA	2y	37	54	21,24,32	1.57	4 (19%)	30,35,47	1.99	9 (30%)
31	UR3	2a	1498	31	19,22,23	1.04	2 (10%)	26,32,35	1.75	2 (7%)
54	PSU	2y	32	54	18,21,22	1.35	2 (11%)	21,30,33	1.98	4 (19%)
1	5MU	2A	1939	1	19,22,23	1.37	5 (26%)	27,32,35	2.20	6 (22%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	5MC	2A	1962	1	19,22,23	1.44	2 (10%)	26,32,35	1.13	3 (11%)
54	PSU	1x	55	54	18,21,22	1.36	2 (11%)	21,30,33	2.11	5 (23%)
31	5MC	2a	967	31	19,22,23	1.60	3 (15%)	26,32,35	1.15	3 (11%)
54	PSU	1y	55	54	18,21,22	1.33	2 (11%)	21,30,33	2.10	3 (14%)
54	MIA	2x	37	54	21,24,32	1.59	4 (19%)	30,35,47	2.02	7 (23%)
1	5MC	2A	1942	1	19,22,23	1.44	3 (15%)	26,32,35	1.17	3 (11%)
31	MA6	1a	1519	31	23,26,27	1.58	4 (17%)	33,38,41	2.33	13 (39%)
31	5MC	2a	1404	31	19,22,23	1.72	3 (15%)	26,32,35	1.14	3 (11%)
54	7MG	2x	46	54	23,26,27	1.29	4 (17%)	27,39,42	2.76	7 (25%)
1	OMG	1A	2251	1,56	23,26,27	1.32	3 (13%)	32,38,41	2.05	9 (28%)
54	MIA	1y	37	31,54	21,24,32	1.61	4 (19%)	30,35,47	1.97	8 (26%)
1	OMC	1A	1920	1	19,22,23	0.81	0	25,31,34	1.18	3 (12%)
1	2MU	2A	2552	1	19,22,24	1.27	4 (21%)	25,31,36	1.93	5 (20%)
1	5MU	1A	1915	1	19,22,23	1.41	6 (31%)	27,32,35	2.12	6 (22%)
1	PSU	1A	2605	1	18,21,22	1.45	3 (16%)	21,30,33	2.10	4 (19%)
54	PSU	1y	39	54	18,21,22	1.36	2 (11%)	21,30,33	2.13	4 (19%)
54	7MG	1y	46	54	23,26,27	1.29	4 (17%)	27,39,42	2.72	7 (25%)
31	2MG	1a	1207	31	23,26,27	1.27	4 (17%)	33,38,41	2.24	8 (24%)
1	PSU	2A	1911	1,56	18,21,22	1.43	3 (16%)	21,30,33	2.19	3 (14%)
54	PSU	1x	32	56,54	18,21,22	1.40	2 (11%)	21,30,33	1.99	3 (14%)
1	5MU	2A	1915	1,56	19,22,23	1.53	4 (21%)	27,32,35	2.10	7 (25%)
54	4SU	1y	8	54	18,21,22	1.93	5 (27%)	25,30,33	2.27	5 (20%)

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
31	PSU	2a	516	31,56	-	1/7/25/26	0/2/2/2
54	4SU	2x	8	54	-	2/7/25/26	0/2/2/2
31	2MG	2a	1207	31	-	1/9/27/28	0/3/3/3
31	UR3	1a	1498	31,56	-	0/7/25/26	0/2/2/2
31	7MG	1a	527	31,56	-	2/7/37/38	0/3/3/3
1	OMG	2A	2251	1,56	-	0/9/27/28	0/3/3/3
54	PSU	1y	32	54	-	1/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	2MU	1A	2552	1,56	-	1/9/27/28	0/2/2/2
54	PSU	2x	55	54	-	1/7/25/26	0/2/2/2
31	5MC	2a	1400	31	-	4/7/25/26	0/2/2/2
1	2MA	1A	2503	1,56	-	4/7/25/26	0/3/3/3
31	7MG	2a	527	31	-	2/7/37/38	0/3/3/3
31	5MC	1a	1400	31	-	0/7/25/26	0/2/2/2
31	MA6	1a	1518	31	-	3/11/29/30	0/3/3/3
31	4OC	1a	1402	31	-	2/9/29/30	0/2/2/2
1	2MA	2A	2503	1,56	-	2/7/25/26	0/3/3/3
1	OMC	2A	1920	1	-	0/9/27/28	0/2/2/2
31	5MC	1a	967	31	-	0/7/25/26	0/2/2/2
54	PSU	2x	39	54	-	2/7/25/26	0/2/2/2
54	5MU	2y	54	54	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1,56	-	5/7/25/26	0/2/2/2
1	5MU	1A	1939	1	-	1/7/25/26	0/2/2/2
31	MA6	2a	1518	31,56	-	2/11/29/30	0/3/3/3
54	5MU	1x	54	54	-	2/7/25/26	0/2/2/2
42	0TD	1l	92	42	-	3/7/12/14	-
31	M2G	2a	966	31	-	0/11/29/30	0/3/3/3
31	M2G	1a	966	31	-	0/11/29/30	0/3/3/3
42	0TD	2l	92	42	-	2/7/12/14	-
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1,56	-	0/7/25/26	0/2/2/2
31	4OC	2a	1402	31	-	2/9/29/30	0/2/2/2
54	7MG	1x	46	54	-	1/7/37/38	0/3/3/3
54	PSU	2y	55	54	-	0/7/25/26	0/2/2/2
31	MA6	2a	1519	31	-	5/11/29/30	0/3/3/3
31	5MC	1a	1407	31	-	0/7/25/26	0/2/2/2
1	5MC	1A	1962	1	-	0/7/25/26	0/2/2/2
31	PSU	1a	516	31,56	-	0/7/25/26	0/2/2/2
54	PSU	2x	32	56,54	-	0/7/25/26	0/2/2/2
54	MIA	1x	37	54	-	2/7/25/34	0/3/3/3
54	PSU	2y	39	54	-	0/7/25/26	0/2/2/2
54	7MG	2y	46	54	-	4/7/37/38	0/3/3/3
54	5MU	1y	54	54	-	0/7/25/26	0/2/2/2
54	5MU	2x	54	54	-	1/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
54	4SU	2y	8	54	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
54	PSU	1x	39	54	-	2/7/25/26	0/2/2/2
54	4SU	1x	8	56,54	-	4/7/25/26	0/2/2/2
31	5MC	1a	1404	31	-	0/7/25/26	0/2/2/2
31	5MC	2a	1407	31,56	-	0/7/25/26	0/2/2/2
54	MIA	2y	37	54	-	3/7/25/34	0/3/3/3
31	UR3	2a	1498	31	-	0/7/25/26	0/2/2/2
54	PSU	2y	32	54	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1	-	0/7/25/26	0/2/2/2
54	PSU	1x	55	54	-	1/7/25/26	0/2/2/2
31	5MC	2a	967	31	-	1/7/25/26	0/2/2/2
54	PSU	1y	55	54	-	0/7/25/26	0/2/2/2
54	MIA	2x	37	54	-	3/7/25/34	0/3/3/3
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
31	MA6	1a	1519	31	-	3/11/29/30	0/3/3/3
31	5MC	2a	1404	31	-	0/7/25/26	0/2/2/2
54	7MG	2x	46	54	-	1/7/37/38	0/3/3/3
1	OMG	1A	2251	1,56	-	0/9/27/28	0/3/3/3
54	MIA	1y	37	31,54	-	3/7/25/34	0/3/3/3
1	OMC	1A	1920	1	-	1/9/27/28	0/2/2/2
1	2MU	2A	2552	1	-	0/9/27/28	0/2/2/2
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
54	PSU	1y	39	54	-	0/7/25/26	0/2/2/2
54	7MG	1y	46	54	-	5/7/37/38	0/3/3/3
31	2MG	1a	1207	31	-	0/9/27/28	0/3/3/3
1	PSU	2A	1911	1,56	-	1/7/25/26	0/2/2/2
54	PSU	1x	32	56,54	-	2/7/25/26	0/2/2/2
1	5MU	2A	1915	1,56	-	0/7/25/26	0/2/2/2
54	4SU	1y	8	54	-	0/7/25/26	0/2/2/2

All (233) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	1l	92	0TD	CB-SB	-12.12	1.70	1.82
42	2l	92	0TD	CB-SB	-12.11	1.70	1.82
31	2a	1404	5MC	C5-C4	6.43	1.49	1.44
31	1a	1404	5MC	C5-C4	6.25	1.48	1.44
1	1A	1942	5MC	C5-C4	6.15	1.48	1.44
31	1a	1400	5MC	C5-C4	6.04	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	1a	1407	5MC	C5-C4	5.88	1.48	1.44
31	1a	967	5MC	C5-C4	5.87	1.48	1.44
31	2a	967	5MC	C5-C4	5.74	1.48	1.44
31	2a	1407	5MC	C5-C4	5.58	1.48	1.44
1	1A	1962	5MC	C5-C4	5.48	1.48	1.44
31	2a	1400	5MC	C5-C4	5.30	1.48	1.44
54	1y	8	4SU	C4-S4	-5.13	1.59	1.68
31	2a	1519	MA6	C5-C4	5.11	1.48	1.39
54	1x	37	MIA	C5-C4	5.08	1.48	1.39
54	2x	37	MIA	C5-C4	4.98	1.48	1.39
54	2y	8	4SU	C4-S4	-4.98	1.59	1.68
31	1a	1519	MA6	C5-C4	4.95	1.47	1.39
54	1y	37	MIA	C5-C4	4.94	1.47	1.39
1	2A	1942	5MC	C5-C4	4.88	1.47	1.44
54	2y	37	MIA	C5-C4	4.81	1.47	1.39
1	2A	1962	5MC	C5-C4	4.79	1.47	1.44
54	2x	8	4SU	C4-S4	-4.77	1.60	1.68
31	2a	1518	MA6	C5-C4	4.74	1.47	1.39
31	1a	1518	MA6	C5-C4	4.68	1.47	1.39
1	1A	2503	2MA	C5-C4	4.67	1.47	1.39
54	1x	8	4SU	C4-S4	-4.29	1.61	1.68
1	2A	2503	2MA	C5-C4	4.13	1.46	1.39
1	1A	2605	PSU	C6-C5	3.88	1.39	1.35
54	2y	32	PSU	C6-C5	3.84	1.39	1.35
54	2x	55	PSU	C6-C5	3.82	1.39	1.35
54	1y	32	PSU	C6-C5	3.77	1.39	1.35
54	1y	8	4SU	C4-N3	-3.67	1.33	1.37
1	2A	1917	PSU	C6-C5	3.66	1.39	1.35
54	1x	32	PSU	C6-C5	3.66	1.39	1.35
54	1x	39	PSU	C6-C5	3.62	1.39	1.35
54	1x	55	PSU	C6-C5	3.61	1.39	1.35
54	2y	39	PSU	C6-C5	3.59	1.39	1.35
31	2a	527	7MG	C4-N9	-3.57	1.33	1.37
31	1a	516	PSU	C6-C5	3.57	1.39	1.35
1	1A	1917	PSU	C6-C5	3.53	1.39	1.35
1	2A	1911	PSU	C6-C5	3.50	1.39	1.35
54	2y	8	4SU	C4-N3	-3.49	1.34	1.37
54	1y	39	PSU	C6-C5	3.45	1.39	1.35
54	2x	32	PSU	C6-C5	3.42	1.39	1.35
54	2y	55	PSU	C6-C5	3.41	1.39	1.35
54	1y	46	7MG	C5-C4	3.37	1.48	1.37
54	2y	46	7MG	C5-C4	3.36	1.48	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	2l	92	0TD	CB-CA	-3.34	1.53	1.54
31	1a	966	M2G	C5-C4	3.33	1.47	1.38
54	1y	55	PSU	C6-C5	3.32	1.39	1.35
54	1x	46	7MG	C4-N9	-3.32	1.33	1.37
54	2x	39	PSU	C6-C5	3.30	1.38	1.35
31	2a	966	M2G	C5-C4	3.24	1.47	1.38
31	1a	527	7MG	C5-C4	3.23	1.47	1.37
54	2x	46	7MG	C5-C4	3.23	1.47	1.37
1	2A	2251	OMG	C5-C4	3.23	1.47	1.38
31	2a	516	PSU	C6-C5	3.21	1.38	1.35
1	1A	1911	PSU	C6-C5	3.20	1.38	1.35
31	2a	527	7MG	C5-C4	3.18	1.47	1.37
1	2A	1915	5MU	C2-N1	3.18	1.43	1.38
31	1a	1207	2MG	C5-C4	3.17	1.47	1.38
31	2a	1207	2MG	C5-C4	3.16	1.47	1.38
54	1x	46	7MG	C5-C4	3.15	1.47	1.37
31	1a	1519	MA6	C5-C6	3.12	1.49	1.41
1	2A	2605	PSU	C4-N3	-3.10	1.33	1.38
1	1A	2251	OMG	C6-N1	-3.09	1.33	1.38
31	2a	1400	5MC	C6-C5	3.07	1.39	1.34
54	1x	37	MIA	C5-C6	3.04	1.49	1.41
31	1a	966	M2G	C2-N2	3.03	1.40	1.35
1	1A	2552	2MU	C4-N3	-3.03	1.33	1.38
1	1A	1939	5MU	C6-C5	3.03	1.39	1.34
54	2x	46	7MG	C4-N9	-3.01	1.34	1.37
31	2a	1518	MA6	C5-C6	2.99	1.49	1.41
1	2A	1915	5MU	C6-C5	2.98	1.39	1.34
31	2a	1407	5MC	C6-C5	2.97	1.39	1.34
31	2a	1519	MA6	C5-C6	2.96	1.49	1.41
1	2A	1962	5MC	C6-C5	2.96	1.39	1.34
31	1a	527	7MG	C4-N9	-2.93	1.34	1.37
1	1A	2251	OMG	C5-C4	2.92	1.46	1.38
54	2x	8	4SU	C4-N3	-2.92	1.34	1.37
54	1y	37	MIA	C5-C6	2.86	1.49	1.41
31	2a	966	M2G	C2-N2	2.86	1.40	1.35
54	2x	54	5MU	C6-C5	2.86	1.39	1.34
54	1y	8	4SU	C5-C4	-2.84	1.39	1.42
1	1A	1915	5MU	C6-C5	2.84	1.39	1.34
1	2A	1939	5MU	C6-C5	2.82	1.39	1.34
31	1a	967	5MC	C6-C5	2.82	1.39	1.34
54	1y	54	5MU	C6-C5	2.81	1.39	1.34
54	2y	54	5MU	C6-C5	2.81	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2x	37	MIA	C5-C6	2.80	1.48	1.41
54	1y	54	5MU	C2-N1	2.79	1.42	1.38
31	1a	1400	5MC	C6-C5	2.79	1.39	1.34
31	1a	1518	MA6	C5-C6	2.79	1.48	1.41
1	1A	2251	OMG	C5-N7	-2.78	1.33	1.39
54	1x	54	5MU	C6-C5	2.78	1.39	1.34
54	1x	8	4SU	C2-N1	2.78	1.42	1.38
1	1A	1939	5MU	C4-N3	-2.77	1.33	1.38
1	1A	2503	2MA	C5-C6	2.77	1.48	1.41
1	2A	2605	PSU	C6-C5	2.75	1.38	1.35
31	1a	1404	5MC	C6-C5	2.73	1.39	1.34
54	1x	8	4SU	C4-N3	-2.72	1.34	1.37
54	2y	37	MIA	C5-C6	2.72	1.48	1.41
54	2y	54	5MU	C2-N1	2.71	1.42	1.38
1	1A	1911	PSU	C4-N3	-2.70	1.33	1.38
31	1a	1407	5MC	C6-C5	2.68	1.39	1.34
1	2A	1911	PSU	C4-N3	-2.67	1.33	1.38
1	2A	2552	2MU	C4-N3	-2.67	1.34	1.38
1	2A	1915	5MU	C4-C5	2.67	1.49	1.44
1	2A	2503	2MA	C5-C6	2.66	1.48	1.41
1	1A	1915	5MU	C4-N3	-2.65	1.33	1.38
54	2x	54	5MU	C2-N1	2.65	1.42	1.38
31	2a	967	5MC	C6-C5	2.64	1.38	1.34
1	1A	1917	PSU	C4-N3	-2.64	1.33	1.38
54	1x	55	PSU	C4-N3	-2.63	1.33	1.38
1	1A	2552	2MU	C5-C4	2.63	1.49	1.43
54	2y	46	7MG	C4-N9	-2.63	1.34	1.37
1	2A	2251	OMG	C6-N1	-2.62	1.33	1.38
1	2A	1939	5MU	C4-N3	-2.62	1.33	1.38
1	2A	1917	PSU	C4-N3	-2.62	1.34	1.38
54	2x	54	5MU	C4-N3	-2.61	1.34	1.38
54	2x	39	PSU	C4-N3	-2.59	1.34	1.38
1	2A	2503	2MA	C8-N7	2.58	1.36	1.31
54	1y	39	PSU	C4-N3	-2.58	1.34	1.38
31	2a	516	PSU	C4-N3	-2.57	1.34	1.38
54	1x	8	4SU	C5-C4	-2.57	1.39	1.42
54	2y	55	PSU	C4-N3	-2.56	1.34	1.38
54	1y	54	5MU	C4-C5	2.55	1.49	1.44
54	2y	8	4SU	C5-C4	-2.55	1.39	1.42
54	1x	39	PSU	C4-N3	-2.55	1.34	1.38
54	2x	32	PSU	C4-N3	-2.54	1.34	1.38
31	2a	966	M2G	C6-N1	-2.53	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1942	5MC	C6-C5	2.52	1.38	1.34
1	2A	1915	5MU	C4-N3	-2.52	1.34	1.38
54	1y	54	5MU	C4-N3	-2.51	1.34	1.38
54	2y	54	5MU	C4-C5	2.51	1.48	1.44
54	1x	32	PSU	C4-N3	-2.51	1.34	1.38
1	1A	2605	PSU	C4-N3	-2.50	1.34	1.38
54	1x	54	5MU	C4-N3	-2.50	1.34	1.38
54	1y	55	PSU	C4-N3	-2.49	1.34	1.38
1	2A	1939	5MU	C6-N1	-2.48	1.33	1.38
1	1A	1962	5MC	C6-C5	2.47	1.38	1.34
31	1a	1207	2MG	C2-N3	2.47	1.36	1.32
54	1y	46	7MG	C4-N9	-2.46	1.34	1.37
31	2a	1404	5MC	C6-C5	2.45	1.38	1.34
1	2A	1939	5MU	C4-C5	2.45	1.48	1.44
1	1A	1939	5MU	C2-N1	2.43	1.42	1.38
54	2x	8	4SU	C5-C4	-2.42	1.39	1.42
31	1a	516	PSU	C4-N3	-2.42	1.34	1.38
31	1a	1207	2MG	C6-N1	-2.42	1.34	1.38
54	2x	55	PSU	C4-N3	-2.42	1.34	1.38
31	1a	966	M2G	C6-N1	-2.41	1.34	1.38
54	2y	39	PSU	C4-N3	-2.41	1.34	1.38
1	2A	2251	OMG	C5-N7	-2.40	1.34	1.39
54	1y	37	MIA	C8-N7	2.39	1.36	1.31
1	1A	1942	5MC	C6-N1	-2.39	1.33	1.38
54	2y	54	5MU	C4-N3	-2.38	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.38	1.34	1.38
54	1x	54	5MU	C4-C5	2.37	1.48	1.44
31	2a	1519	MA6	C5-N7	-2.37	1.34	1.39
54	2y	37	MIA	C8-N7	2.37	1.36	1.31
1	1A	1942	5MC	C6-C5	2.36	1.38	1.34
54	1x	37	MIA	C8-N7	2.36	1.36	1.31
31	2a	1207	2MG	C6-N1	-2.35	1.34	1.38
54	2x	54	5MU	C4-C5	2.34	1.48	1.44
54	1y	32	PSU	C4-N3	-2.33	1.34	1.38
54	2y	32	PSU	C4-N3	-2.33	1.34	1.38
1	1A	2503	2MA	C8-N7	2.32	1.36	1.31
31	1a	1400	5MC	C6-N1	-2.32	1.34	1.38
54	1x	54	5MU	C2-N1	2.32	1.42	1.38
1	1A	1915	5MU	C4-C5	2.32	1.48	1.44
54	1y	8	4SU	C2-N3	-2.32	1.33	1.38
54	2x	37	MIA	C8-N7	2.31	1.36	1.31
31	1a	1404	5MC	C6-N1	-2.31	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	1a	1519	MA6	C8-N7	2.30	1.36	1.31
1	2A	2503	2MA	C5-N7	-2.30	1.34	1.39
31	2a	1518	MA6	C8-N7	2.29	1.36	1.31
54	2x	8	4SU	C2-N1	2.28	1.42	1.38
31	2a	967	5MC	C6-N1	-2.28	1.34	1.38
54	2y	8	4SU	C2-N3	-2.28	1.34	1.38
31	2a	1207	2MG	C2-N3	2.28	1.36	1.32
31	2a	966	M2G	C5-N7	-2.27	1.34	1.39
31	1a	527	7MG	C6-N1	-2.26	1.34	1.38
31	1a	1518	MA6	C5-N7	-2.26	1.35	1.39
1	1A	2503	2MA	C5-N7	-2.25	1.35	1.39
1	1A	1939	5MU	C4-C5	2.25	1.48	1.44
42	1l	92	0TD	CB-CA	-2.24	1.54	1.54
1	2A	2552	2MU	C2-N3	-2.24	1.34	1.38
54	2y	46	7MG	C6-N1	-2.24	1.34	1.38
54	1x	54	5MU	C6-N1	-2.23	1.34	1.38
31	2a	1518	MA6	C5-N7	-2.23	1.35	1.39
31	2a	1498	UR3	C2-N1	2.22	1.41	1.38
31	2a	527	7MG	C6-N1	-2.21	1.34	1.38
54	1y	8	4SU	C2-N1	2.21	1.41	1.38
1	2A	1939	5MU	C2-N3	-2.21	1.34	1.38
31	1a	1498	UR3	C2-N1	2.21	1.41	1.38
54	2x	37	MIA	C5-N7	-2.20	1.35	1.39
31	2a	1519	MA6	C8-N7	2.19	1.35	1.31
54	2y	37	MIA	C5-N7	-2.19	1.35	1.39
1	2A	2503	2MA	C4-N9	-2.18	1.33	1.37
1	1A	1915	5MU	C6-N1	-2.17	1.34	1.38
54	1y	54	5MU	C6-N1	-2.17	1.34	1.38
1	2A	2552	2MU	C5-C4	2.16	1.48	1.43
31	2a	1404	5MC	C6-N1	-2.16	1.34	1.38
1	1A	1915	5MU	C2-N3	-2.13	1.34	1.38
54	2y	54	5MU	C6-N1	-2.13	1.34	1.38
54	1x	46	7MG	C5-C6	2.13	1.48	1.43
1	2A	2552	2MU	C2-N1	2.13	1.41	1.38
1	1A	1911	PSU	C2-N3	-2.12	1.34	1.37
31	1a	1519	MA6	C5-N7	-2.12	1.35	1.39
31	1a	1498	UR3	C6-C5	2.11	1.40	1.35
1	2A	1911	PSU	C2-N1	-2.10	1.33	1.36
1	1A	1911	PSU	C2-N1	-2.09	1.33	1.36
54	2x	46	7MG	C5-C6	2.08	1.48	1.43
54	1y	46	7MG	C5-C6	2.08	1.48	1.43
54	1y	37	MIA	C5-N7	-2.08	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	1a	1518	MA6	C4-N9	-2.07	1.33	1.37
54	2x	46	7MG	C6-N1	-2.07	1.35	1.38
31	1a	1518	MA6	C8-N7	2.07	1.35	1.31
31	1a	966	M2G	C5-N7	-2.06	1.34	1.39
54	1y	46	7MG	C6-N1	-2.06	1.35	1.38
54	2x	54	5MU	C6-N1	-2.05	1.34	1.38
1	1A	2552	2MU	C2-N3	-2.04	1.34	1.38
1	1A	2605	PSU	C2-N3	-2.04	1.34	1.37
1	1A	1915	5MU	C2-N1	2.04	1.41	1.38
54	1x	39	PSU	C4-C5	2.03	1.50	1.44
31	1a	516	PSU	C2-N3	-2.03	1.34	1.37
54	2y	46	7MG	C8-N9	2.02	1.47	1.45
31	1a	1207	2MG	C5-N7	-2.02	1.35	1.39
1	1A	1939	5MU	C6-N1	-2.01	1.34	1.38
1	1A	2552	2MU	C6-C5	2.01	1.39	1.35
54	2x	54	5MU	C2-N3	-2.01	1.34	1.38
31	2a	1498	UR3	C6-C5	2.01	1.39	1.35

All (389) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	1l	92	0TD	CSB-SB-CB	-11.06	82.48	102.36
54	1y	46	7MG	N9-C4-N3	9.32	139.12	125.46
54	2y	46	7MG	N9-C4-N3	9.26	139.03	125.46
54	2x	46	7MG	N9-C4-N3	9.05	138.72	125.46
31	1a	527	7MG	N9-C4-N3	8.90	138.50	125.46
31	2a	527	7MG	N9-C4-N3	8.65	138.13	125.46
54	1x	46	7MG	N9-C4-N3	8.54	137.97	125.46
1	1A	2503	2MA	C5-C4-N3	-8.12	118.62	127.18
1	2A	2503	2MA	C5-C4-N3	-7.90	118.86	127.18
31	1a	1207	2MG	C2-N3-C4	7.29	121.11	112.00
31	2a	1207	2MG	C2-N3-C4	7.26	121.08	112.00
1	2A	2605	PSU	N1-C2-N3	7.15	122.71	115.17
31	2a	1498	UR3	C4-N3-C2	-7.07	118.89	124.58
54	2x	8	4SU	C4-N3-C2	-7.01	120.60	127.31
1	2A	1911	PSU	N1-C2-N3	6.88	122.43	115.17
1	1A	2251	OMG	C5-C4-N3	-6.86	117.48	128.39
31	1a	1498	UR3	C4-N3-C2	-6.84	119.07	124.58
54	1y	8	4SU	C4-N3-C2	-6.83	120.77	127.31
54	1y	39	PSU	N1-C2-N3	6.72	122.26	115.17
1	1A	2552	2MU	N3-C2-N1	6.62	123.50	114.89
1	2A	2251	OMG	C5-C4-N3	-6.56	117.95	128.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	1a	1207	2MG	C5-C4-N3	-6.52	118.02	128.39
54	2x	32	PSU	N1-C2-N3	6.48	122.00	115.17
54	2y	8	4SU	C4-N3-C2	-6.46	121.12	127.31
54	1x	55	PSU	N1-C2-N3	6.43	121.95	115.17
31	2a	966	M2G	C5-C4-N3	-6.43	118.16	128.39
54	1y	55	PSU	N1-C2-N3	6.39	121.91	115.17
1	1A	1917	PSU	N1-C2-N3	6.39	121.91	115.17
1	1A	2503	2MA	N3-C4-N9	6.36	135.06	126.99
54	2x	39	PSU	N1-C2-N3	6.36	121.87	115.17
54	2y	55	PSU	N1-C2-N3	6.35	121.87	115.17
31	1a	966	M2G	C5-C4-N3	-6.34	118.30	128.39
31	2a	1519	MA6	C5-C4-N3	-6.30	118.04	126.72
54	1x	8	4SU	C1'-N1-C2	6.27	128.85	117.59
31	2a	1207	2MG	C5-C4-N3	-6.27	118.42	128.39
54	1x	39	PSU	N1-C2-N3	6.26	121.77	115.17
54	2x	55	PSU	N1-C2-N3	6.21	121.72	115.17
54	1x	46	7MG	N9-C8-N7	-6.17	94.63	103.37
54	1x	32	PSU	N1-C2-N3	6.15	121.65	115.17
54	1y	8	4SU	C5-C4-N3	6.12	120.44	114.75
31	2a	516	PSU	N1-C2-N3	6.09	121.60	115.17
54	2y	39	PSU	N1-C2-N3	6.07	121.57	115.17
31	1a	1519	MA6	C5-C4-N3	-6.07	118.36	126.72
1	1A	2605	PSU	N1-C2-N3	6.00	121.50	115.17
1	2A	1917	PSU	N1-C2-N3	5.96	121.45	115.17
54	2y	32	PSU	N1-C2-N3	5.91	121.40	115.17
31	2a	1518	MA6	C5-C4-N3	-5.82	118.71	126.72
54	1x	37	MIA	C5-C4-N3	-5.75	118.80	126.72
54	2y	8	4SU	C5-C4-N3	5.75	120.10	114.75
54	1y	46	7MG	C5-C4-N3	-5.75	117.34	128.13
54	2x	46	7MG	C5-C4-N3	-5.74	117.36	128.13
54	1y	32	PSU	N1-C2-N3	5.72	121.20	115.17
54	2x	8	4SU	C5-C4-N3	5.72	120.07	114.75
54	2x	37	MIA	C5-C4-N3	-5.69	118.89	126.72
54	1x	8	4SU	C4-N3-C2	-5.66	121.89	127.31
54	1x	54	5MU	C4-N3-C2	-5.56	120.05	127.34
31	2a	527	7MG	N9-C8-N7	-5.55	95.52	103.37
54	1x	54	5MU	N3-C2-N1	5.54	122.11	114.89
31	1a	516	PSU	N1-C2-N3	5.52	120.99	115.17
1	2A	2503	2MA	N3-C4-N9	5.51	133.99	126.99
54	2y	46	7MG	C5-C4-N3	-5.45	117.90	128.13
54	1y	37	MIA	C5-C4-N3	-5.44	119.23	126.72
54	2x	46	7MG	N9-C8-N7	-5.42	95.70	103.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	1x	46	7MG	C5-C4-N3	-5.41	117.97	128.13
54	2y	37	MIA	C5-C4-N3	-5.41	119.27	126.72
1	2A	1939	5MU	C4-N3-C2	-5.40	120.26	127.34
1	1A	1911	PSU	N1-C2-N3	5.39	120.86	115.17
31	1a	527	7MG	C5-C4-N3	-5.38	118.03	128.13
1	2A	1939	5MU	N3-C2-N1	5.33	121.83	114.89
54	2y	46	7MG	N9-C8-N7	-5.27	95.91	103.37
1	1A	1915	5MU	C4-N3-C2	-5.26	120.44	127.34
31	1a	527	7MG	N9-C8-N7	-5.18	96.03	103.37
54	1y	46	7MG	N9-C8-N7	-5.18	96.03	103.37
31	2a	527	7MG	C5-C4-N3	-5.16	118.44	128.13
1	2A	1915	5MU	N3-C2-N1	5.13	121.56	114.89
54	2y	54	5MU	C4-N3-C2	-5.13	120.62	127.34
54	1y	54	5MU	C4-N3-C2	-5.09	120.67	127.34
54	1y	54	5MU	N3-C2-N1	5.08	121.51	114.89
1	1A	2251	OMG	N9-C4-N3	5.06	136.08	125.95
1	1A	1915	5MU	N3-C2-N1	5.05	121.46	114.89
1	1A	1939	5MU	N3-C2-N1	5.04	121.45	114.89
54	2y	54	5MU	N3-C2-N1	5.03	121.44	114.89
31	2a	966	M2G	N9-C4-N3	5.03	136.01	125.95
31	1a	1518	MA6	C5-C4-N3	-5.01	119.81	126.72
1	2A	1915	5MU	C4-N3-C2	-4.99	120.80	127.34
1	1A	2251	OMG	C2-N3-C4	4.97	120.85	112.30
1	2A	2251	OMG	C2-N3-C4	4.96	120.85	112.30
1	1A	1939	5MU	C4-N3-C2	-4.95	120.84	127.34
1	1A	2552	2MU	C4-N3-C2	-4.86	120.57	126.61
1	2A	2251	OMG	N9-C4-N3	4.85	135.66	125.95
31	1a	1207	2MG	N9-C4-N3	4.83	135.62	125.95
1	2A	2605	PSU	C4-N3-C2	-4.82	119.73	126.37
54	2x	54	5MU	N3-C2-N1	4.82	121.17	114.89
1	1A	1915	5MU	C5-C4-N3	4.78	119.48	115.32
1	2A	2552	2MU	N3-C2-N1	4.77	121.09	114.89
31	1a	966	M2G	N9-C4-N3	4.74	135.44	125.95
1	2A	2552	2MU	C4-N3-C2	-4.74	120.73	126.61
54	2x	46	7MG	C2-N3-C4	4.73	120.45	112.30
54	2x	37	MIA	N3-C4-N9	4.71	135.18	127.17
1	1A	1939	5MU	C5-C6-N1	-4.70	118.21	123.31
31	2a	1519	MA6	N3-C4-N9	4.68	135.13	127.17
54	1x	37	MIA	N3-C4-N9	4.68	135.12	127.17
54	2x	54	5MU	C4-N3-C2	-4.66	121.23	127.34
54	1y	46	7MG	C2-N3-C4	4.65	120.31	112.30
31	1a	966	M2G	C2-N3-C4	4.59	121.00	112.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	1a	1518	MA6	C2-N1-C6	4.59	123.03	111.83
31	2a	1207	2MG	N9-C4-N3	4.56	135.06	125.95
31	2a	1518	MA6	C9-N6-C6	-4.54	108.97	120.52
31	1a	1519	MA6	N3-C4-N9	4.52	134.85	127.17
54	1x	8	4SU	C5-C4-N3	4.43	118.87	114.75
54	1y	37	MIA	N3-C4-N9	4.42	134.69	127.17
31	1a	527	7MG	C2-N3-C4	4.42	119.91	112.30
31	2a	966	M2G	C2-N3-C4	4.40	120.66	112.51
54	1y	39	PSU	C4-N3-C2	-4.39	120.33	126.37
1	2A	1911	PSU	O2-C2-N1	-4.38	118.27	122.79
54	2y	46	7MG	C2-N3-C4	4.38	119.84	112.30
54	1x	46	7MG	C2-N3-C4	4.37	119.83	112.30
54	1x	55	PSU	C4-N3-C2	-4.37	120.35	126.37
54	1y	54	5MU	C5-C4-N3	4.36	119.11	115.32
54	2y	37	MIA	N3-C4-N9	4.35	134.57	127.17
54	2y	54	5MU	C5-C4-N3	4.32	119.08	115.32
31	1a	1518	MA6	C9-N6-C6	-4.31	109.55	120.52
31	2a	1518	MA6	N3-C4-N9	4.31	134.50	127.17
1	2A	1915	5MU	C5-C4-N3	4.29	119.05	115.32
31	1a	1519	MA6	C4-C5-N7	-4.28	105.69	110.58
1	1A	1917	PSU	C4-N3-C2	-4.27	120.48	126.37
1	2A	2605	PSU	O2-C2-N1	-4.27	118.39	122.79
54	1x	54	5MU	O4-C4-C5	-4.26	120.05	124.92
31	2a	527	7MG	C2-N3-C4	4.25	119.61	112.30
1	2A	1939	5MU	C5-C4-N3	4.24	119.01	115.32
1	2A	1911	PSU	C4-N3-C2	-4.24	120.53	126.37
54	1y	55	PSU	O2-C2-N1	-4.23	118.42	122.79
54	1x	8	4SU	N3-C2-N1	4.18	120.33	114.89
1	1A	2605	PSU	C4-N3-C2	-4.18	120.62	126.37
54	1x	54	5MU	C5-C4-N3	4.17	118.95	115.32
54	2x	39	PSU	C4-N3-C2	-4.16	120.64	126.37
54	2x	8	4SU	N3-C2-N1	4.14	120.28	114.89
31	1a	1519	MA6	C2-N1-C6	4.14	121.94	111.83
54	2y	55	PSU	C4-N3-C2	-4.13	120.69	126.37
31	2a	1518	MA6	C2-N1-C6	4.10	121.84	111.83
1	1A	1915	5MU	O4-C4-C5	-4.09	120.23	124.92
54	2x	55	PSU	C4-N3-C2	-4.09	120.74	126.37
54	1y	55	PSU	C4-N3-C2	-4.08	120.74	126.37
54	2x	8	4SU	C5-C4-S4	-4.08	119.65	124.31
54	2x	32	PSU	O2-C2-N1	-4.07	118.59	122.79
31	2a	1519	MA6	C9-N6-C6	-4.07	110.17	120.52
54	2x	32	PSU	C4-N3-C2	-4.04	120.81	126.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1939	5MU	C5-C6-N1	-4.04	118.92	123.31
31	2a	1518	MA6	C10-N6-C6	-4.01	110.33	120.52
54	2y	54	5MU	O4-C4-C5	-4.00	120.34	124.92
54	2y	55	PSU	O2-C2-N1	-4.00	118.67	122.79
1	2A	1939	5MU	O2-C2-N1	-3.99	117.60	122.80
31	2a	516	PSU	C4-N3-C2	-3.99	120.87	126.37
1	2A	2503	2MA	C4-C5-N7	-3.96	106.06	110.58
54	2y	32	PSU	C4-N3-C2	-3.94	120.94	126.37
54	2x	54	5MU	C5-C4-N3	3.94	118.74	115.32
54	2y	39	PSU	C4-N3-C2	-3.93	120.96	126.37
31	2a	1519	MA6	C2-N1-C6	3.92	121.41	111.83
54	2y	8	4SU	N3-C2-N1	3.92	120.00	114.89
31	2a	1518	MA6	C4-C5-N7	-3.92	106.10	110.58
31	1a	516	PSU	C4-N3-C2	-3.90	121.00	126.37
31	1a	1518	MA6	N3-C4-N9	3.88	133.77	127.17
54	1y	8	4SU	N3-C2-N1	3.88	119.95	114.89
54	1y	8	4SU	C5-C4-S4	-3.88	119.88	124.31
31	1a	1518	MA6	C4-C5-N7	-3.86	106.17	110.58
54	1x	32	PSU	O2-C2-N1	-3.86	118.81	122.79
54	1y	54	5MU	O4-C4-C5	-3.82	120.55	124.92
54	2x	55	PSU	O2-C2-N1	-3.80	118.87	122.79
31	2a	1519	MA6	C4-C5-N7	-3.79	106.24	110.58
54	1x	32	PSU	C4-N3-C2	-3.79	121.15	126.37
1	2A	1915	5MU	O4-C4-C5	-3.79	120.58	124.92
31	1a	1400	5MC	C5-C6-N1	-3.75	119.24	123.31
31	1a	1519	MA6	C9-N6-C6	-3.74	111.00	120.52
1	2A	1939	5MU	O4-C4-C5	-3.71	120.67	124.92
31	1a	1519	MA6	C2-N3-C4	3.70	120.86	111.83
1	2A	1917	PSU	O2-C2-N1	-3.70	118.98	122.79
54	1x	37	MIA	C4-C5-N7	-3.70	106.36	110.58
54	1y	39	PSU	O2-C2-N1	-3.69	118.99	122.79
54	2x	37	MIA	C2-N3-C4	3.66	120.76	111.83
54	1x	39	PSU	C4-N3-C2	-3.64	121.36	126.37
54	2x	39	PSU	O2-C2-N1	-3.64	119.04	122.79
31	2a	1518	MA6	C2-N3-C4	3.64	120.71	111.83
1	1A	1915	5MU	C5-C6-N1	-3.60	119.40	123.31
54	1x	39	PSU	O2-C2-N1	-3.60	119.08	122.79
1	1A	1939	5MU	C5-C4-N3	3.59	118.44	115.32
54	1x	8	4SU	C5-C4-S4	-3.58	120.22	124.31
54	1x	54	5MU	C5-C6-N1	-3.58	119.42	123.31
54	2x	54	5MU	O4-C4-C5	-3.58	120.82	124.92
54	2y	37	MIA	N3-C2-N1	-3.58	123.17	128.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	2a	516	PSU	O2-C2-N1	-3.58	119.10	122.79
54	1y	37	MIA	C2-N3-C4	3.57	120.56	111.83
54	1y	32	PSU	C4-N3-C2	-3.57	121.45	126.37
1	1A	2552	2MU	O2-C2-N1	-3.56	118.16	122.80
54	2y	37	MIA	C2-N3-C4	3.55	120.51	111.83
54	1x	37	MIA	C2-N3-C4	3.55	120.51	111.83
54	2x	37	MIA	N3-C2-N1	-3.52	123.25	128.58
1	1A	1911	PSU	C4-N3-C2	-3.50	121.55	126.37
54	1x	8	4SU	C1'-N1-C6	-3.49	113.33	120.78
31	2a	1519	MA6	C2-N3-C4	3.49	120.34	111.83
1	1A	1939	5MU	O4-C4-C5	-3.48	120.93	124.92
1	1A	2503	2MA	C4-C5-N7	-3.44	106.64	110.58
31	2a	1519	MA6	C10-N6-C6	-3.44	111.77	120.52
1	1A	1939	5MU	O2-C2-N1	-3.44	118.32	122.80
54	1x	54	5MU	O2-C2-N1	-3.44	118.32	122.80
31	1a	1518	MA6	N1-C2-N3	-3.43	123.39	128.58
54	1y	37	MIA	N3-C2-N1	-3.41	123.42	128.58
54	2y	37	MIA	C4-C5-N7	-3.40	106.69	110.58
1	1A	1942	5MC	C5-C6-N1	-3.40	119.62	123.31
31	1a	1518	MA6	C2-N3-C4	3.40	120.13	111.83
54	2x	39	PSU	C3'-C2'-C1'	3.40	105.70	101.69
54	1y	37	MIA	C4-C5-N7	-3.35	106.75	110.58
31	2a	1519	MA6	N1-C6-N6	3.35	120.94	116.86
54	2x	54	5MU	C5-C6-N1	-3.35	119.68	123.31
31	1a	1404	5MC	C5-C6-N1	-3.34	119.68	123.31
54	1x	55	PSU	O2-C2-N1	-3.33	119.35	122.79
1	1A	1911	PSU	O2-C2-N1	-3.32	119.37	122.79
54	2y	8	4SU	C5-C4-S4	-3.31	120.52	124.31
1	1A	2605	PSU	C6-C5-C4	-3.28	115.96	118.17
54	2y	32	PSU	O2-C2-N1	-3.28	119.41	122.79
1	2A	2552	2MU	C5-C4-N3	3.28	119.39	114.80
31	2a	1498	UR3	C5-C4-N3	3.28	119.35	115.04
1	1A	1962	5MC	C5-C6-N1	-3.27	119.77	123.31
54	2x	37	MIA	C4-C5-N7	-3.26	106.86	110.58
1	2A	1915	5MU	C5-C6-N1	-3.24	119.80	123.31
31	2a	1207	2MG	C6-C5-N7	3.23	136.18	130.29
54	2y	39	PSU	O2-C2-N1	-3.21	119.48	122.79
1	1A	2605	PSU	O2-C2-N1	-3.20	119.49	122.79
54	1y	32	PSU	O2-C2-N1	-3.19	119.50	122.79
1	1A	1917	PSU	O2-C2-N1	-3.18	119.51	122.79
54	1x	37	MIA	N3-C2-N1	-3.18	123.77	128.58
54	2x	46	7MG	C5-C6-N1	3.18	116.53	110.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	1a	1207	2MG	C6-C5-N7	3.14	136.01	130.29
54	2y	54	5MU	C5-C6-N1	-3.12	119.93	123.31
54	1y	54	5MU	C5-C6-N1	-3.11	119.94	123.31
31	2a	967	5MC	C5-C4-N3	-3.10	118.58	121.75
31	2a	1400	5MC	C5-C6-N1	-3.08	119.97	123.31
1	1A	1911	PSU	C6-C5-C4	-3.07	116.10	118.17
1	2A	1917	PSU	C4-N3-C2	-3.06	122.16	126.37
31	1a	1519	MA6	C5-N7-C8	3.06	108.26	103.45
54	1x	37	MIA	C4-N9-C8	3.05	108.94	105.74
42	2l	92	0TD	CSB-SB-CB	-3.03	96.92	102.36
31	2a	1518	MA6	N1-C2-N3	-3.02	124.01	128.58
31	1a	1519	MA6	N1-C2-N3	-3.01	124.02	128.58
31	1a	966	M2G	C6-C5-N7	3.01	135.77	130.29
1	2A	2552	2MU	O4-C4-C5	-3.01	119.98	125.16
1	1A	1915	5MU	O2-C2-N1	-2.99	118.90	122.80
1	1A	2503	2MA	N6-C6-N1	2.97	121.04	117.03
31	2a	1404	5MC	C5-C6-N1	-2.97	120.09	123.31
31	2a	1400	5MC	C5-C4-N3	-2.95	118.73	121.75
1	1A	1920	OMC	C1'-N1-C2	2.94	124.94	118.44
54	1y	46	7MG	C5-C6-N1	2.90	116.04	110.94
31	1a	1407	5MC	C5-C4-N3	-2.90	118.78	121.75
1	1A	1942	5MC	C5-C4-N3	-2.88	118.80	121.75
54	1y	37	MIA	C4-N9-C8	2.88	108.76	105.74
31	1a	516	PSU	O2-C2-N1	-2.88	119.82	122.79
31	2a	1407	5MC	C5-C4-N3	-2.86	118.82	121.75
54	2y	37	MIA	C4-N9-C8	2.86	108.74	105.74
31	1a	967	5MC	C5-C6-N1	-2.84	120.22	123.31
31	2a	1404	5MC	C5-C4-N3	-2.83	118.85	121.75
31	1a	1518	MA6	C4-N9-C8	2.80	108.68	105.74
31	2a	967	5MC	C5-C6-N1	-2.79	120.28	123.31
54	1x	8	4SU	O2-C2-N3	-2.79	116.34	121.49
31	1a	527	7MG	C5-C6-N1	2.79	115.84	110.94
1	2A	1962	5MC	C5-C6-N1	-2.78	120.29	123.31
42	2l	92	0TD	OD2-CG-CB	2.78	119.16	113.15
1	2A	2503	2MA	C5-N7-C8	2.77	107.81	103.45
31	1a	1518	MA6	C5-N7-C8	2.76	107.79	103.45
1	2A	2605	PSU	C5-C6-N1	-2.75	118.32	122.14
1	2A	2503	2MA	C6-C5-N7	2.74	137.37	132.09
1	2A	1942	5MC	C5-C6-N1	-2.74	120.34	123.31
1	1A	2503	2MA	C2-N1-C6	2.74	122.31	118.10
31	1a	1207	2MG	C4-C5-N7	-2.74	106.34	110.67
54	2y	46	7MG	C5-C6-N1	2.70	115.69	110.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	2a	1518	MA6	C5-N7-C8	2.69	107.68	103.45
31	1a	1400	5MC	C5-C4-N3	-2.68	119.00	121.75
54	1x	37	MIA	C5-N7-C8	2.68	107.66	103.45
1	1A	1942	5MC	O2-C2-N3	-2.67	118.12	122.33
54	2x	37	MIA	C4-N9-C8	2.67	108.54	105.74
1	2A	1942	5MC	C5-C4-N3	-2.66	119.02	121.75
31	2a	1518	MA6	N1-C6-N6	2.66	120.10	116.86
31	2a	1207	2MG	C4-C5-N7	-2.66	106.46	110.67
54	1x	8	4SU	C6-N1-C2	-2.65	117.77	121.00
31	2a	527	7MG	C5-C6-N1	2.65	115.60	110.94
54	1x	39	PSU	C6-C5-C4	-2.65	116.39	118.17
31	2a	1518	MA6	C10-N6-C9	-2.63	107.72	116.18
54	1x	46	7MG	C5-C6-N1	2.63	115.57	110.94
54	1x	46	7MG	N2-C2-N3	-2.63	114.54	119.67
1	1A	2503	2MA	C4-N9-C8	2.63	108.50	105.74
1	1A	1942	5MC	CM5-C5-C6	-2.63	119.30	122.85
1	2A	2503	2MA	C4-N9-C8	2.60	108.47	105.74
31	1a	967	5MC	C5-C4-N3	-2.60	119.09	121.75
1	2A	2552	2MU	C2'-C1'-N1	-2.58	109.34	114.24
1	2A	2251	OMG	C6-C5-N7	2.57	134.97	130.29
42	1l	92	0TD	OD2-CG-CB	2.57	118.70	113.15
31	1a	1498	UR3	C5-C4-N3	2.57	118.42	115.04
31	2a	966	M2G	C6-C5-N7	2.55	134.94	130.29
54	2y	46	7MG	C5-C4-N9	-2.55	103.06	106.33
31	1a	1498	UR3	C6-N1-C2	-2.55	119.72	121.80
31	2a	1407	5MC	C5-C6-N1	-2.54	120.56	123.31
1	1A	2503	2MA	C5-N7-C8	2.53	107.43	103.45
1	2A	2503	2MA	C2-N1-C6	2.52	121.98	118.10
31	1a	966	M2G	C4-C5-N7	-2.52	106.68	110.67
31	1a	1518	MA6	C10-N6-C6	-2.51	114.14	120.52
31	1a	516	PSU	C6-C5-C4	-2.51	116.48	118.17
54	2x	37	MIA	C5-N7-C8	2.50	107.38	103.45
54	2y	37	MIA	C5-N7-C8	2.50	107.38	103.45
31	1a	967	5MC	O2-C2-N3	-2.50	118.39	122.33
31	1a	1519	MA6	C10-N6-C6	-2.48	114.20	120.52
31	1a	1519	MA6	C4-N9-C8	2.44	108.30	105.74
1	2A	2251	OMG	C4-C5-N7	-2.42	106.83	110.67
31	2a	1519	MA6	N1-C2-N3	-2.42	124.92	128.58
31	1a	1402	4OC	CM4-N4-C4	-2.42	117.72	122.45
1	1A	1939	5MU	C6-C5-C4	2.42	120.02	118.02
1	2A	2503	2MA	N9-C8-N7	-2.42	110.51	113.94
31	1a	1404	5MC	O2-C2-N3	-2.40	118.54	122.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	1y	37	MIA	C5-N7-C8	2.38	107.20	103.45
31	2a	1518	MA6	C4-N9-C8	2.38	108.24	105.74
1	1A	1920	OMC	O2-C2-N3	-2.37	118.59	122.33
54	1y	54	5MU	C1'-N1-C2	2.36	121.84	117.59
54	2x	46	7MG	O6-C6-C5	-2.35	121.86	127.62
1	2A	1962	5MC	O2-C2-N3	-2.35	118.63	122.33
31	1a	1518	MA6	C10-N6-C9	-2.35	108.64	116.18
31	1a	1404	5MC	C5-C4-N3	-2.34	119.35	121.75
31	2a	1519	MA6	C4-C5-C6	2.34	118.33	115.91
31	2a	527	7MG	O6-C6-C5	-2.32	121.91	127.62
1	2A	1962	5MC	C5-C4-N3	-2.32	119.37	121.75
1	2A	1942	5MC	O2-C2-N3	-2.32	118.67	122.33
54	2y	32	PSU	C6-C5-C4	-2.32	116.61	118.17
31	2a	1519	MA6	C5-N7-C8	2.31	107.09	103.45
54	2y	54	5MU	C1'-N1-C2	2.29	121.71	117.59
54	1y	46	7MG	O6-C6-C5	-2.28	122.01	127.62
31	2a	527	7MG	C5-C4-N9	-2.28	103.41	106.33
31	2a	966	M2G	C4-C5-N7	-2.27	107.07	110.67
31	1a	516	PSU	O4'-C1'-C2'	2.26	108.28	105.15
31	1a	527	7MG	O6-C6-C5	-2.26	122.08	127.62
1	1A	1962	5MC	O2-C2-N3	-2.26	118.77	122.33
1	1A	1917	PSU	O4'-C1'-C2'	2.26	108.27	105.15
31	1a	527	7MG	C5-C4-N9	-2.25	103.45	106.33
31	2a	1402	4OC	C6-C5-C4	2.25	119.71	117.00
1	1A	2251	OMG	C2-N1-C6	-2.25	121.03	125.11
31	1a	1207	2MG	C2-N1-C6	-2.25	121.83	124.55
1	1A	2251	OMG	O6-C6-C5	-2.25	120.60	126.53
31	1a	1519	MA6	N1-C6-N6	2.24	119.58	116.86
31	1a	1498	UR3	C3U-N3-C2	2.24	121.23	117.33
1	1A	2251	OMG	C6-C5-N7	2.22	134.34	130.29
54	2x	32	PSU	O4'-C1'-C2'	2.22	108.22	105.15
54	1y	39	PSU	C5-C6-N1	-2.22	119.06	122.14
31	1a	1518	MA6	C6-C5-N7	2.21	136.96	133.43
1	1A	1962	5MC	C5-C4-N3	-2.20	119.50	121.75
31	2a	1404	5MC	CM5-C5-C6	-2.20	119.88	122.85
1	2A	1915	5MU	O2-C2-N3	-2.19	117.45	121.49
54	1x	46	7MG	O6-C6-C5	-2.19	122.25	127.62
54	1y	46	7MG	C5-C4-N9	-2.18	103.54	106.33
54	2x	39	PSU	C5-C6-N1	-2.18	119.12	122.14
54	1x	55	PSU	C5-C6-N1	-2.18	119.12	122.14
54	2x	46	7MG	C2-N1-C6	-2.17	121.17	125.11
31	2a	966	M2G	O6-C6-C5	-2.16	120.83	126.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	2y	46	7MG	O6-C6-C5	-2.16	122.33	127.62
31	2a	967	5MC	C1'-N1-C6	-2.15	117.61	121.15
1	1A	1920	OMC	N4-C4-N3	2.14	121.73	117.91
31	2a	1400	5MC	O2-C2-N3	-2.13	118.98	122.33
31	1a	966	M2G	O6-C6-C5	-2.12	120.95	126.53
31	1a	1518	MA6	N9-C8-N7	-2.11	110.94	113.94
1	1A	2251	OMG	CM2-O2'-C2'	-2.11	109.07	114.47
1	1A	2552	2MU	C5-C4-N3	2.10	117.74	114.80
1	1A	2251	OMG	C4-C5-N7	-2.10	107.34	110.67
31	1a	1519	MA6	N9-C8-N7	-2.09	110.96	113.94
54	1x	37	MIA	N9-C8-N7	-2.09	110.97	113.94
54	1y	54	5MU	C5M-C5-C4	2.09	121.01	118.78
1	1A	2503	2MA	C6-C5-N7	2.08	136.09	132.09
54	1x	55	PSU	O4'-C1'-C2'	2.07	108.02	105.15
54	2x	55	PSU	C6-C5-C4	-2.07	116.78	118.17
31	1a	1404	5MC	CM5-C5-C6	-2.07	120.05	122.85
31	2a	1207	2MG	O6-C6-C5	-2.06	121.08	126.53
1	1A	1942	5MC	N1-C2-N3	2.06	122.38	118.80
1	2A	1917	PSU	O4'-C1'-C2'	2.06	108.00	105.15
54	1y	8	4SU	C1'-N1-C2	2.06	121.29	117.59
1	1A	2251	OMG	C5-C6-N1	2.06	118.48	113.25
1	2A	1915	5MU	C1'-N1-C2	2.05	121.28	117.59
31	2a	1519	MA6	C5-C6-N6	-2.05	122.09	125.33
54	2y	37	MIA	N9-C8-N7	-2.05	111.03	113.94
54	1y	37	MIA	C6-C5-N7	2.04	136.02	132.09
31	1a	1207	2MG	O6-C6-C5	-2.04	121.16	126.53
54	2y	37	MIA	C2-N1-C6	2.02	122.04	118.73
54	2x	32	PSU	C5-C6-N1	-2.01	119.35	122.14
31	1a	1207	2MG	C8-N7-C5	2.01	107.83	104.26
31	2a	1207	2MG	C2-N1-C6	-2.01	122.12	124.55
1	2A	2251	OMG	O6-C6-C5	-2.01	121.24	126.53
31	1a	1519	MA6	C6-C5-N7	2.00	136.63	133.43

There are no chirality outliers.

All (90) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
42	1l	92	0TD	CA-CB-SB-CSB
42	1l	92	0TD	CG-CB-SB-CSB
42	2l	92	0TD	SB-CB-CG-OD1
1	2A	1917	PSU	C2'-C1'-C5-C4
1	2A	1917	PSU	C2'-C1'-C5-C6

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Mol	Chain	Res	Type	Atoms
31	2a	1207	2MG	N3-C2-N2-CM2
31	1a	1402	4OC	O4'-C4'-C5'-O5'
31	2a	1402	4OC	O4'-C4'-C5'-O5'
31	1a	1518	MA6	C5-C6-N6-C9
31	2a	1519	MA6	O4'-C4'-C5'-O5'
54	1y	37	MIA	C3'-C4'-C5'-O5'
54	1x	39	PSU	C2'-C1'-C5-C4
54	1x	39	PSU	C2'-C1'-C5-C6
54	1y	46	7MG	C4'-C5'-O5'-P
54	2y	46	7MG	C4'-C5'-O5'-P
54	2y	46	7MG	C2'-C1'-N9-C8
54	1x	8	4SU	C2'-C1'-N1-C6
54	1x	8	4SU	C2'-C1'-N1-C2
31	2a	527	7MG	C3'-C4'-C5'-O5'
31	2a	1519	MA6	C3'-C4'-C5'-O5'
54	1x	37	MIA	O4'-C4'-C5'-O5'
54	1x	37	MIA	C3'-C4'-C5'-O5'
54	2y	37	MIA	C3'-C4'-C5'-O5'
54	2x	39	PSU	C3'-C4'-C5'-O5'
54	1y	46	7MG	C3'-C4'-C5'-O5'
54	2y	46	7MG	C3'-C4'-C5'-O5'
1	1A	2503	2MA	O4'-C1'-N9-C8
1	1A	2503	2MA	O4'-C4'-C5'-O5'
31	2a	527	7MG	O4'-C4'-C5'-O5'
31	2a	1402	4OC	C3'-C4'-C5'-O5'
54	1y	37	MIA	O4'-C4'-C5'-O5'
1	1A	2503	2MA	O4'-C1'-N9-C4
31	1a	1518	MA6	N1-C6-N6-C9
31	2a	1400	5MC	C2'-C1'-N1-C6
31	1a	1402	4OC	C3'-C4'-C5'-O5'
31	1a	1519	MA6	O4'-C4'-C5'-O5'
1	2A	1917	PSU	C3'-C4'-C5'-O5'
1	1A	2503	2MA	C3'-C4'-C5'-O5'
54	2x	37	MIA	C3'-C4'-C5'-O5'
54	2y	37	MIA	O4'-C4'-C5'-O5'
31	1a	527	7MG	C3'-C4'-C5'-O5'
54	2x	39	PSU	O4'-C4'-C5'-O5'
54	1y	46	7MG	O4'-C4'-C5'-O5'
54	2y	46	7MG	O4'-C4'-C5'-O5'
54	1x	54	5MU	C3'-C4'-C5'-O5'
54	2x	37	MIA	C4'-C5'-O5'-P
54	1x	46	7MG	C4'-C5'-O5'-P

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Mol	Chain	Res	Type	Atoms
31	1a	1519	MA6	C5-C6-N6-C10
1	1A	1915	5MU	C3'-C4'-C5'-O5'
54	2x	37	MIA	O4'-C4'-C5'-O5'
54	2x	8	4SU	O4'-C4'-C5'-O5'
31	2a	1400	5MC	C2'-C1'-N1-C2
54	2x	8	4SU	C3'-C4'-C5'-O5'
54	1y	46	7MG	C2'-C1'-N9-C8
31	2a	1518	MA6	C5-C6-N6-C10
31	2a	1519	MA6	C5-C6-N6-C10
1	2A	1917	PSU	O4'-C4'-C5'-O5'
54	1x	54	5MU	O4'-C4'-C5'-O5'
31	2a	1400	5MC	O4'-C1'-N1-C6
42	2l	92	0TD	CG-CB-SB-CSB
42	1l	92	0TD	SB-CB-CG-OD1
31	1a	527	7MG	O4'-C4'-C5'-O5'
31	2a	1400	5MC	O4'-C1'-N1-C2
1	2A	1917	PSU	C4'-C5'-O5'-P
54	1y	37	MIA	C4'-C5'-O5'-P
54	2x	46	7MG	C4'-C5'-O5'-P
54	1x	32	PSU	O4'-C1'-C5-C4
54	1x	55	PSU	O4'-C1'-C5-C4
54	1x	8	4SU	C3'-C4'-C5'-O5'
54	2x	54	5MU	C3'-C4'-C5'-O5'
31	1a	1518	MA6	C5-C6-N6-C10
1	2A	2503	2MA	C4'-C5'-O5'-P
31	2a	1519	MA6	C4'-C5'-O5'-P
54	2y	37	MIA	C4'-C5'-O5'-P
1	2A	2503	2MA	O4'-C4'-C5'-O5'
31	2a	967	5MC	O4'-C4'-C5'-O5'
31	1a	1519	MA6	C3'-C4'-C5'-O5'
1	1A	1939	5MU	O4'-C4'-C5'-O5'
1	2A	1911	PSU	O4'-C1'-C5-C6
54	1x	32	PSU	O4'-C1'-C5-C6
54	2x	55	PSU	O4'-C1'-C5-C6
54	1y	46	7MG	O4'-C1'-N9-C8
54	1x	8	4SU	O4'-C4'-C5'-O5'
1	1A	1920	OMC	C2'-C1'-N1-C2
1	1A	1915	5MU	O4'-C4'-C5'-O5'
1	1A	2552	2MU	O4'-C4'-C5'-O5'
31	2a	516	PSU	O4'-C4'-C5'-O5'
54	1y	32	PSU	O4'-C4'-C5'-O5'
31	2a	1518	MA6	N1-C6-N6-C10

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Mol	Chain	Res	Type	Atoms
31	2a	1519	MA6	N1-C6-N6-C10

There are no ring outliers.

39 monomers are involved in 74 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
31	1a	1498	UR3	1	0
1	2A	2251	OMG	1	0
1	1A	2552	2MU	1	0
31	2a	1400	5MC	1	0
1	1A	2503	2MA	6	0
31	1a	1518	MA6	5	0
31	1a	1402	4OC	2	0
1	2A	2503	2MA	2	0
1	2A	1920	OMC	1	0
31	1a	967	5MC	2	0
1	2A	1917	PSU	2	0
1	1A	1939	5MU	2	0
31	2a	1518	MA6	3	0
42	1l	92	0TD	1	0
31	2a	966	M2G	3	0
31	1a	966	M2G	2	0
31	2a	1402	4OC	2	0
54	2y	55	PSU	1	0
31	2a	1519	MA6	2	0
54	2x	32	PSU	1	0
54	2y	46	7MG	1	0
1	1A	1911	PSU	2	0
54	1x	39	PSU	1	0
54	1x	8	4SU	3	0
31	1a	1404	5MC	1	0
54	2y	37	MIA	1	0
1	2A	1962	5MC	2	0
31	2a	967	5MC	4	0
54	2x	37	MIA	1	0
1	2A	1942	5MC	2	0
31	1a	1519	MA6	4	0
1	1A	2251	OMG	3	0
54	1y	37	MIA	1	0
1	1A	1920	OMC	2	0
1	2A	2552	2MU	2	0
1	1A	1915	5MU	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
54	1y	39	PSU	2	0
31	1a	1207	2MG	5	0
1	2A	1911	PSU	2	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2890 ligands modelled in this entry, 2886 are monoatomic - leaving 4 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
58	SF4	2d	303	34	0,12,12	-	-	-		
59	GDP	2v	704	-	29,30,30	1.14	2 (6%)	45,47,47	1.74	6 (13%)
58	SF4	1d	304	34	0,12,12	-	-	-		
59	GDP	1v	704	56	29,30,30	1.16	3 (10%)	45,47,47	1.79	6 (13%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	SF4	2d	303	34	-	-	0/6/5/5
59	GDP	2v	704	-	-	5/16/32/32	0/3/3/3
58	SF4	1d	304	34	-	-	0/6/5/5
59	GDP	1v	704	56	-	0/16/32/32	0/3/3/3

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	2v	704	GDP	C5-C4	3.21	1.47	1.38
59	1v	704	GDP	C5-C4	3.09	1.47	1.38
59	1v	704	GDP	C6-N1	-2.49	1.34	1.38
59	2v	704	GDP	C6-N1	-2.39	1.34	1.38
59	1v	704	GDP	C5-N7	-2.19	1.34	1.39

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	1v	704	GDP	C5-C4-N3	-6.22	118.49	128.39
59	2v	704	GDP	C5-C4-N3	-5.85	119.07	128.39
59	1v	704	GDP	C2-N3-C4	5.09	121.07	112.30
59	2v	704	GDP	C2-N3-C4	4.80	120.56	112.30
59	1v	704	GDP	N9-C4-N3	4.38	134.70	125.95
59	2v	704	GDP	N9-C4-N3	4.24	134.44	125.95
59	2v	704	GDP	C6-C5-N7	3.36	136.41	130.29
59	1v	704	GDP	C6-C5-N7	3.26	136.22	130.29
59	1v	704	GDP	C4-C5-N7	-2.83	106.19	110.67
59	2v	704	GDP	C4-C5-N7	-2.70	106.39	110.67
59	1v	704	GDP	C3'-C2'-C1'	2.32	105.84	101.46
59	2v	704	GDP	C3'-C2'-C1'	2.02	105.28	101.46

There are no chirality outliers.

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
59	2v	704	GDP	C5'-O5'-PA-O3A
59	2v	704	GDP	C5'-O5'-PA-O1A
59	2v	704	GDP	O4'-C4'-C5'-O5'
59	2v	704	GDP	C3'-C4'-C5'-O5'
59	2v	704	GDP	C5'-O5'-PA-O2A

There are no ring outliers.

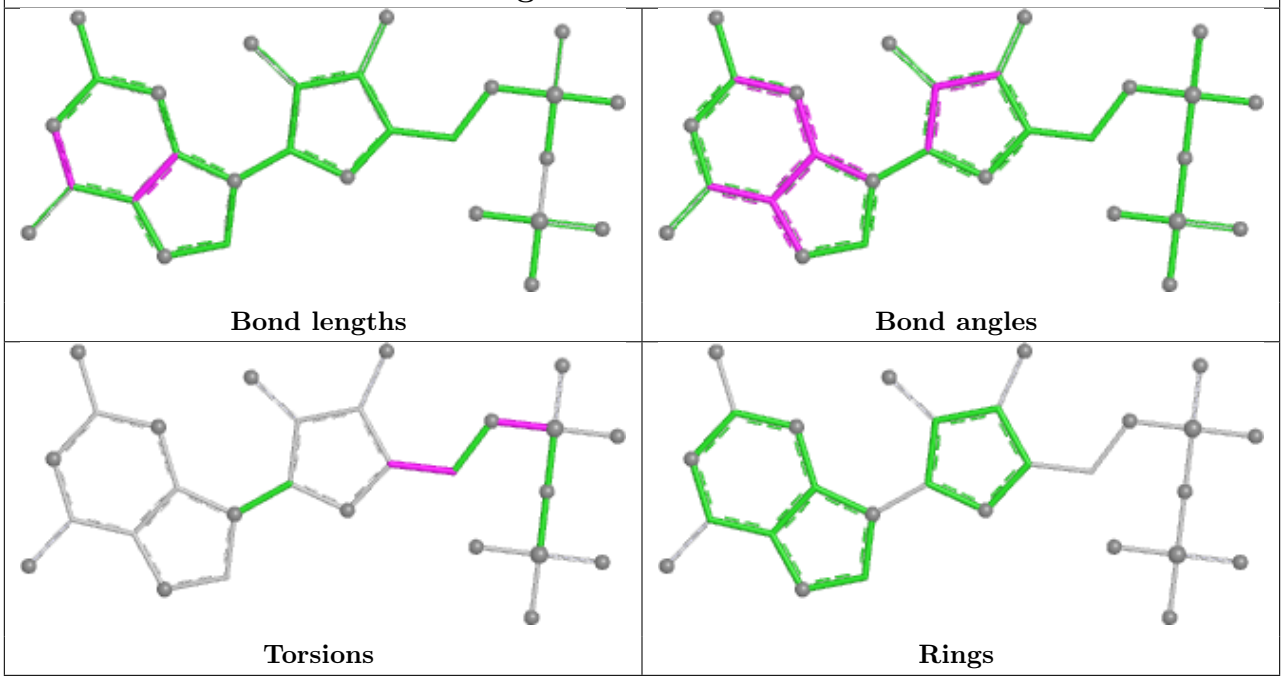
4 monomers are involved in 8 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	2d	303	SF4	1	0
59	2v	704	GDP	2	0
58	1d	304	SF4	2	0
59	1v	704	GDP	3	0

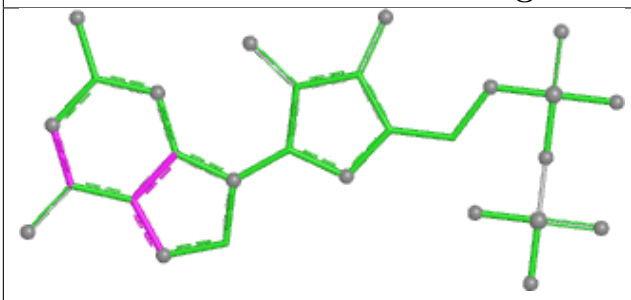
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths,

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

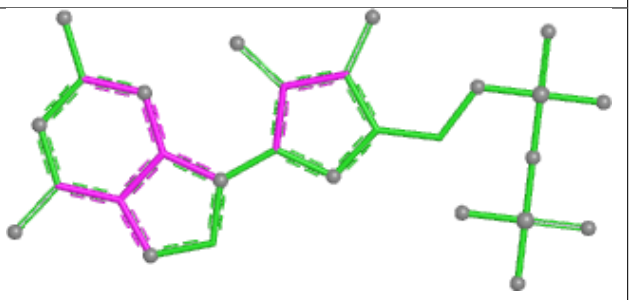
Ligand GDP 2v 704



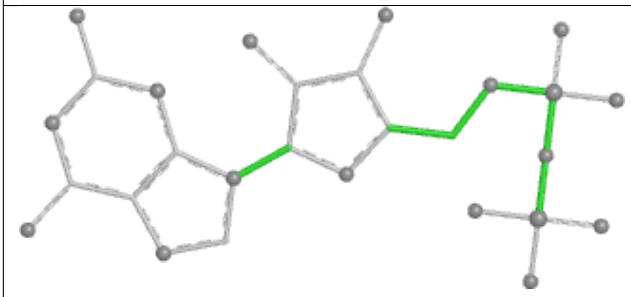
Ligand GDP 1v 704



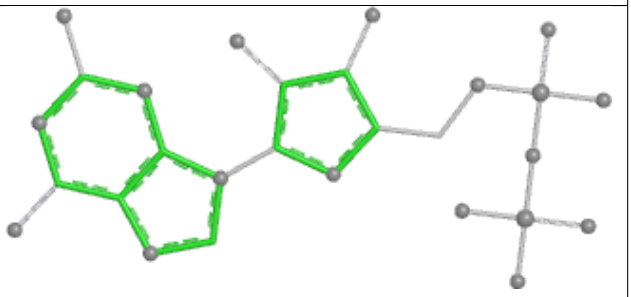
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	1A	2860/2915 (98%)	-0.46	13 (0%) 87 68	54, 75, 190, 283	0
1	2A	2789/2915 (95%)	-0.23	14 (0%) 87 68	84, 119, 191, 306	0
2	1B	120/121 (99%)	-0.56	0 100 100	71, 95, 113, 126	0
2	2B	120/121 (99%)	-0.07	0 100 100	132, 165, 184, 198	0
3	1D	275/276 (99%)	-0.08	1 (0%) 88 72	62, 80, 92, 98	0
3	2D	275/276 (99%)	0.13	9 (3%) 49 28	89, 102, 117, 121	0
4	1E	204/206 (99%)	-0.14	2 (0%) 79 56	60, 81, 94, 100	0
4	2E	204/206 (99%)	0.07	2 (0%) 79 56	96, 125, 137, 142	0
5	1F	203/210 (96%)	-0.21	2 (0%) 79 56	55, 82, 100, 109	0
5	2F	203/210 (96%)	0.01	1 (0%) 87 68	94, 141, 155, 160	0
6	1G	181/182 (99%)	-0.01	1 (0%) 85 65	105, 135, 158, 175	0
6	2G	181/182 (99%)	0.19	1 (0%) 85 65	175, 205, 219, 227	0
7	1H	174/180 (96%)	-0.24	0 100 100	80, 88, 97, 101	0
7	2H	174/180 (96%)	-0.07	1 (0%) 85 65	150, 166, 181, 184	0
8	1N	140/140 (100%)	-0.08	1 (0%) 84 63	64, 73, 84, 90	0
8	2N	140/140 (100%)	0.09	1 (0%) 84 63	113, 128, 139, 141	0
9	1O	122/122 (100%)	-0.16	0 100 100	74, 85, 96, 100	0
9	2O	122/122 (100%)	0.07	1 (0%) 82 60	108, 121, 131, 132	0
10	1P	149/150 (99%)	-0.11	1 (0%) 84 63	55, 82, 104, 111	0
10	2P	149/150 (99%)	0.05	3 (2%) 65 39	102, 134, 149, 151	0
11	1Q	141/141 (100%)	-0.08	0 100 100	64, 79, 89, 101	0
11	2Q	141/141 (100%)	0.22	2 (1%) 73 48	108, 134, 150, 153	0
12	1R	118/118 (100%)	-0.07	1 (0%) 82 60	64, 72, 81, 84	0
12	2R	118/118 (100%)	0.30	3 (2%) 58 35	96, 112, 122, 126	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1S	110/112 (98%)	-0.17	0 100 100	83, 90, 97, 100	0
13	2S	110/112 (98%)	0.22	4 (3%) 46 25	147, 159, 166, 168	0
14	1T	131/146 (89%)	-0.07	2 (1%) 72 47	79, 89, 111, 118	0
14	2T	131/146 (89%)	0.00	1 (0%) 82 60	120, 128, 143, 148	0
15	1U	116/118 (98%)	-0.17	0 100 100	58, 65, 73, 75	0
15	2U	116/118 (98%)	0.16	4 (3%) 48 27	105, 125, 137, 139	0
16	1V	101/101 (100%)	-0.29	0 100 100	55, 74, 81, 83	0
16	2V	101/101 (100%)	-0.04	4 (3%) 42 23	106, 138, 144, 148	0
17	1W	112/113 (99%)	-0.09	0 100 100	60, 65, 81, 91	0
17	2W	112/113 (99%)	-0.05	0 100 100	88, 99, 107, 117	0
18	1X	95/96 (98%)	-0.09	1 (1%) 78 54	71, 76, 84, 88	0
18	2X	95/96 (98%)	0.13	0 100 100	102, 110, 118, 129	0
19	1Y	107/110 (97%)	-0.18	1 (0%) 81 58	78, 83, 90, 101	0
19	2Y	107/110 (97%)	0.23	3 (2%) 55 32	118, 137, 145, 147	0
20	1Z	204/206 (99%)	-0.25	1 (0%) 87 68	83, 99, 113, 123	0
20	2Z	204/206 (99%)	-0.01	1 (0%) 87 68	127, 157, 174, 179	0
21	10	75/85 (88%)	-0.19	0 100 100	68, 74, 81, 85	0
21	20	75/85 (88%)	0.26	2 (2%) 56 33	118, 129, 139, 144	0
22	11	97/98 (98%)	0.10	1 (1%) 79 56	67, 82, 107, 111	0
22	21	97/98 (98%)	0.49	3 (3%) 51 29	106, 124, 149, 156	0
23	12	70/72 (97%)	-0.02	0 100 100	82, 87, 97, 104	0
23	22	70/72 (97%)	-0.02	3 (4%) 40 21	119, 132, 140, 141	0
24	13	59/60 (98%)	-0.15	0 100 100	63, 71, 83, 90	0
24	23	59/60 (98%)	0.24	1 (1%) 69 43	122, 130, 133, 135	0
25	14	69/71 (97%)	-0.27	0 100 100	123, 162, 237, 238	0
25	24	69/71 (97%)	0.02	0 100 100	195, 221, 254, 255	0
26	15	59/60 (98%)	-0.18	1 (1%) 69 43	57, 73, 77, 79	0
26	25	59/60 (98%)	-0.17	1 (1%) 69 43	92, 114, 120, 121	0
27	16	53/54 (98%)	-0.18	0 100 100	74, 80, 83, 85	0
27	26	53/54 (98%)	0.02	1 (1%) 66 41	123, 130, 134, 147	0
28	17	48/49 (97%)	0.06	0 100 100	60, 63, 71, 73	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	27	48/49 (97%)	0.29	0 100 100	85, 96, 100, 101	0
29	18	64/65 (98%)	0.20	0 100 100	63, 70, 76, 78	0
29	28	64/65 (98%)	0.64	4 (6%) 26 15	114, 119, 128, 133	0
30	19	37/37 (100%)	0.09	0 100 100	77, 79, 81, 83	0
30	29	37/37 (100%)	0.99	8 (21%) 2 3	133, 141, 149, 152	0
31	1a	1487/1521 (97%)	-0.20	6 (0%) 88 72	90, 142, 235, 306	0
31	2a	1491/1521 (98%)	0.01	11 (0%) 84 63	117, 163, 259, 294	0
32	1b	231/256 (90%)	-0.09	3 (1%) 75 50	157, 172, 189, 196	0
32	2b	231/256 (90%)	0.02	2 (0%) 81 58	185, 199, 223, 234	0
33	1c	206/239 (86%)	-0.05	2 (0%) 79 56	185, 200, 218, 220	0
33	2c	206/239 (86%)	0.16	4 (1%) 66 41	216, 231, 246, 248	0
34	1d	208/209 (99%)	0.19	7 (3%) 48 27	137, 149, 154, 155	0
34	2d	208/209 (99%)	0.26	8 (3%) 44 24	140, 164, 167, 169	0
35	1e	148/162 (91%)	-0.04	0 100 100	127, 141, 148, 153	0
35	2e	148/162 (91%)	0.17	5 (3%) 48 27	157, 171, 185, 190	0
36	1f	100/101 (99%)	-0.38	0 100 100	132, 138, 147, 153	0
36	2f	100/101 (99%)	-0.16	0 100 100	143, 148, 155, 160	0
37	1g	155/156 (99%)	0.12	2 (1%) 75 50	175, 205, 212, 215	0
37	2g	155/156 (99%)	0.26	3 (1%) 66 41	201, 227, 234, 238	0
38	1h	137/138 (99%)	0.08	2 (1%) 72 47	125, 138, 147, 157	0
38	2h	137/138 (99%)	0.32	6 (4%) 39 21	153, 163, 173, 185	0
39	1i	127/128 (99%)	0.56	14 (11%) 10 7	182, 221, 226, 229	0
39	2i	127/128 (99%)	0.68	13 (10%) 12 8	213, 246, 251, 252	0
40	1j	97/105 (92%)	0.50	7 (7%) 21 14	199, 222, 226, 227	0
40	2j	96/105 (91%)	0.34	5 (5%) 33 19	229, 244, 251, 252	0
41	1k	114/129 (88%)	-0.22	3 (2%) 57 33	116, 144, 150, 157	0
41	2k	114/129 (88%)	0.01	2 (1%) 67 42	134, 161, 170, 176	0
42	1l	121/132 (91%)	0.36	6 (4%) 34 19	116, 130, 138, 140	0
42	2l	121/132 (91%)	0.52	4 (3%) 49 28	144, 153, 162, 166	0
43	1m	118/126 (93%)	0.30	7 (5%) 28 16	201, 226, 227, 229	0
43	2m	122/126 (96%)	0.17	3 (2%) 58 35	222, 242, 245, 247	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1n	60/61 (98%)	0.54	3 (5%) 34 19	207, 215, 227, 228	0
44	2n	60/61 (98%)	0.54	2 (3%) 49 28	234, 239, 249, 250	0
45	1o	88/89 (98%)	-0.08	0 100 100	116, 128, 133, 135	0
45	2o	88/89 (98%)	0.15	5 (5%) 29 17	136, 148, 153, 154	0
46	1p	82/88 (93%)	0.26	1 (1%) 76 52	135, 146, 154, 159	0
46	2p	82/88 (93%)	0.56	2 (2%) 59 35	152, 160, 168, 176	0
47	1q	99/105 (94%)	0.20	2 (2%) 65 39	116, 125, 131, 134	0
47	2q	99/105 (94%)	0.31	7 (7%) 22 14	138, 151, 155, 156	0
48	1r	68/88 (77%)	-0.40	0 100 100	133, 139, 143, 147	0
48	2r	68/88 (77%)	-0.09	1 (1%) 72 47	147, 154, 159, 160	0
49	1s	83/93 (89%)	0.49	5 (6%) 27 16	213, 234, 238, 239	0
49	2s	83/93 (89%)	0.58	6 (7%) 21 14	235, 252, 255, 255	0
50	1t	96/106 (90%)	0.66	11 (11%) 9 6	136, 144, 148, 149	0
50	2t	96/106 (90%)	0.89	16 (16%) 4 4	152, 157, 163, 165	0
51	1u	23/27 (85%)	1.21	5 (21%) 2 3	217, 220, 226, 227	0
51	2u	23/27 (85%)	2.21	10 (43%) 0 1	239, 242, 244, 244	0
52	1v	728/758 (96%)	-0.08	9 (1%) 76 52	30, 144, 211, 217	0
52	2v	728/758 (96%)	0.07	7 (0%) 79 56	30, 197, 259, 264	0
53	1w	185/185 (100%)	-0.17	1 (0%) 87 68	87, 118, 158, 166	0
53	2w	185/185 (100%)	0.03	1 (0%) 87 68	123, 157, 206, 217	0
54	1x	67/76 (88%)	0.08	0 100 100	91, 195, 204, 206	0
54	1y	67/76 (88%)	-0.18	1 (1%) 72 47	74, 212, 238, 247	0
54	2x	67/76 (88%)	0.40	6 (8%) 15 10	124, 232, 243, 245	0
54	2y	67/76 (88%)	0.47	2 (2%) 52 30	118, 252, 277, 282	0
55	1z	10/21 (47%)	0.67	0 100 100	150, 157, 164, 164	0
55	2z	10/21 (47%)	1.03	1 (10%) 12 8	181, 185, 203, 204	0
All	All	22334/23178 (96%)	-0.06	336 (1%) 72 47	30, 134, 241, 306	0

All (336) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
51	2u	2	GLY	8.5
22	11	2	SER	8.2

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Mol	Chain	Res	Type	RSRZ
40	1j	62	HIS	6.8
51	2u	16	GLY	6.3
22	21	2	SER	6.1
50	2t	9	ASN	5.7
42	1l	89	ARG	5.7
51	2u	3	LYS	5.5
51	2u	14	TRP	5.1
30	29	23	VAL	4.9
35	2e	21	ALA	4.7
50	2t	22	ARG	4.6
50	1t	25	ARG	4.5
12	2R	69	ASP	4.5
1	2A	2585	U	4.3
42	1l	29	GLY	4.3
38	2h	99	GLU	4.2
50	1t	9	ASN	4.1
34	1d	5	ILE	4.1
21	20	74	ARG	4.1
40	1j	47	PHE	4.0
39	2i	106	ALA	3.9
39	2i	116	LYS	3.8
34	1d	115	ARG	3.8
1	1A	2602	A	3.7
51	2u	4	GLY	3.7
1	2A	888	C	3.7
43	1m	84	ILE	3.7
49	2s	2	PRO	3.7
50	2t	18	GLN	3.7
38	1h	15	ASN	3.6
39	2i	115	GLY	3.6
47	2q	24	GLU	3.6
40	1j	46	ARG	3.6
49	1s	49	ILE	3.6
3	2D	38	LYS	3.6
39	2i	119	ALA	3.6
39	1i	111	ARG	3.5
47	2q	59	ILE	3.5
39	1i	116	LYS	3.5
12	2R	68	ARG	3.5
39	1i	118	LYS	3.5
42	1l	28	LYS	3.4
13	2S	28	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
1	1A	1026	U	3.4
6	1G	87	PRO	3.3
40	2j	47	PHE	3.3
47	2q	26	GLN	3.3
30	29	12	ASP	3.3
32	2b	163	PHE	3.3
1	1A	34	C	3.3
34	2d	102	ASP	3.3
39	2i	121	ARG	3.2
49	2s	76	PRO	3.2
50	2t	25	ARG	3.2
39	1i	128	ARG	3.2
52	2v	163	VAL	3.2
41	2k	126	ARG	3.2
51	2u	5	ASP	3.2
52	1v	89	ASP	3.2
34	2d	118	ARG	3.1
42	2l	68	ALA	3.1
13	2S	4	LEU	3.1
39	1i	121	ARG	3.1
39	2i	113	LYS	3.1
34	2d	69	GLY	3.1
50	2t	69	GLY	3.1
16	2V	80	GLN	3.1
46	2p	1	MET	3.1
12	2R	111	LEU	3.1
49	1s	74	PHE	3.1
41	1k	124	LYS	3.1
1	2A	568	U	3.1
6	2G	159	VAL	3.1
34	2d	67	ILE	3.1
43	2m	123	ALA	3.0
50	1t	21	LYS	3.0
37	2g	74	GLU	3.0
39	2i	108	VAL	3.0
52	1v	594	VAL	3.0
30	29	22	ARG	3.0
50	2t	10	LEU	2.9
51	2u	6	ARG	2.9
1	2A	2115	G	2.9
45	2o	56	LEU	2.9
50	2t	31	SER	2.9

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Mol	Chain	Res	Type	RSRZ
38	2h	73	ASP	2.9
43	1m	80	ARG	2.9
47	1q	26	GLN	2.9
1	1A	1667	G	2.9
16	2V	76	LYS	2.9
9	2O	22	ILE	2.9
32	2b	193	ASP	2.9
37	1g	33	ASP	2.9
41	1k	89	ALA	2.9
39	1i	19	LEU	2.9
29	28	12	LYS	2.9
31	2a	1350	A	2.8
50	2t	20	LEU	2.8
30	29	13	LYS	2.8
34	1d	7	PRO	2.8
37	2g	84	ASN	2.8
44	2n	44	LEU	2.8
52	1v	119	GLU	2.8
1	2A	2602	A	2.8
50	2t	29	LYS	2.8
50	2t	11	SER	2.8
50	2t	21	LYS	2.8
1	1A	2062	A	2.8
3	2D	166	GLN	2.8
11	2Q	140	ALA	2.8
15	2U	5	LYS	2.8
47	2q	74	LEU	2.7
30	29	14	CYS	2.7
19	1Y	1	MET	2.7
39	2i	12	GLU	2.7
49	2s	68	GLY	2.7
29	28	51	ALA	2.7
35	2e	104	ALA	2.7
31	2a	1248	A	2.7
50	1t	55	ILE	2.7
34	1d	4	TYR	2.7
39	1i	122	ALA	2.7
50	1t	17	ARG	2.7
1	2A	901	A	2.7
55	2z	21	A	2.7
24	23	15	TYR	2.7
1	1A	652(U)	G	2.6

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Mol	Chain	Res	Type	RSRZ
31	2a	823	G	2.6
33	2c	130	VAL	2.6
35	2e	81	GLU	2.6
52	2v	466	LEU	2.6
50	1t	80	ARG	2.6
51	1u	7	ARG	2.6
3	2D	231	HIS	2.6
10	1P	29	LYS	2.6
52	2v	67	ALA	2.6
19	2Y	4	LYS	2.6
1	2A	902	C	2.6
43	1m	107	ALA	2.6
44	2n	20	ALA	2.6
15	2U	47	TYR	2.6
39	1i	12	GLU	2.6
31	2a	1364	U	2.6
39	1i	123	PRO	2.6
8	2N	8	GLN	2.5
34	2d	164	ALA	2.5
43	1m	97	PRO	2.5
54	1y	1	G	2.5
4	1E	153	GLY	2.5
54	2x	74	C	2.5
54	2x	75	C	2.5
34	2d	4	TYR	2.5
1	2A	229	A	2.5
23	22	1	MET	2.5
21	20	76	GLY	2.5
50	1t	10	LEU	2.5
1	1A	614(B)	G	2.5
32	1b	148	TYR	2.5
34	1d	11	LEU	2.5
41	1k	126	ARG	2.5
50	2t	13	LEU	2.5
16	2V	73	SER	2.5
52	1v	87	HIS	2.5
31	1a	1325	C	2.5
48	2r	62	GLU	2.5
44	1n	61	TRP	2.5
33	2c	135	LYS	2.5
53	1w	176	ALA	2.5
13	2S	14	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
40	1j	44	VAL	2.5
15	2U	37	GLU	2.4
34	1d	118	ARG	2.4
5	2F	87	GLY	2.4
54	2y	75	C	2.4
27	26	23	THR	2.4
8	1N	83	LYS	2.4
22	21	37	ILE	2.4
38	2h	86	ILE	2.4
3	2D	226	MET	2.4
50	2t	64	ASP	2.4
29	28	29	LYS	2.4
30	29	15	LYS	2.4
38	2h	95	VAL	2.4
52	1v	199	ILE	2.4
54	2x	72	C	2.4
1	1A	654	A	2.4
15	2U	2	PRO	2.4
50	1t	56	MET	2.4
54	2x	76	A	2.4
39	1i	64	THR	2.4
38	1h	16	ALA	2.4
43	1m	113	PRO	2.4
37	1g	9	VAL	2.4
1	1A	653	A	2.4
14	2T	1	MET	2.4
32	1b	188	ALA	2.4
39	2i	15	ALA	2.4
1	2A	2709	G	2.4
54	2y	1	G	2.4
41	2k	118	GLY	2.4
51	1u	14	TRP	2.4
51	1u	16	GLY	2.4
34	2d	93	PHE	2.4
3	2D	54	ARG	2.4
51	1u	15	ARG	2.4
23	22	2	LYS	2.4
31	1a	723	U	2.3
1	2A	2062	A	2.3
31	1a	1359	C	2.3
38	2h	2	LEU	2.3
39	1i	81	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
29	28	22	VAL	2.3
3	2D	5	LYS	2.3
39	1i	119	ALA	2.3
39	1i	117	HIS	2.3
42	2l	94	PRO	2.3
43	2m	99	ARG	2.3
31	2a	105	G	2.3
4	1E	151	TYR	2.3
14	1T	22	PHE	2.3
30	29	17	ILE	2.3
47	2q	36	ILE	2.3
33	2c	151	VAL	2.3
31	2a	824	C	2.3
50	2t	24	LEU	2.3
40	1j	61	GLU	2.3
53	2w	160	GLU	2.3
13	2S	98	VAL	2.3
33	1c	158	GLY	2.3
39	1i	100	GLY	2.3
52	2v	598	ASP	2.3
45	2o	11	VAL	2.3
52	1v	683	VAL	2.3
5	1F	72	ARG	2.3
40	2j	46	ARG	2.3
1	1A	275	G	2.3
1	2A	2116	G	2.3
46	2p	60	LEU	2.3
1	1A	652(V)	C	2.3
31	1a	808	C	2.3
47	1q	37	LYS	2.3
34	1d	102	ASP	2.3
45	2o	64	ARG	2.3
32	1b	196	LEU	2.2
50	2t	28	ALA	2.2
50	1t	11	SER	2.2
1	1A	12	U	2.2
22	21	21	ARG	2.2
51	2u	15	ARG	2.2
52	1v	679	VAL	2.2
39	2i	127	LYS	2.2
11	2Q	6	ARG	2.2
20	2Z	191	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
40	2j	61	GLU	2.2
50	1t	22	ARG	2.2
38	2h	112	LEU	2.2
19	2Y	43	ASN	2.2
31	2a	1235	U	2.2
52	1v	677	GLN	2.2
3	2D	52	ARG	2.2
31	2a	1349	A	2.2
44	1n	14	PRO	2.2
3	2D	230	ASP	2.2
40	2j	58	ASP	2.2
39	2i	114	TYR	2.2
43	1m	90	LEU	2.2
52	2v	424	LEU	2.2
40	1j	72	VAL	2.2
37	2g	120	ILE	2.2
12	1R	69	ASP	2.2
49	2s	13	ASP	2.2
31	2a	306	G	2.2
16	2V	82	ARG	2.2
52	2v	594	VAL	2.2
14	1T	83	ILE	2.2
51	2u	23	PRO	2.2
7	2H	24	VAL	2.1
19	2Y	63	LYS	2.1
47	2q	58	GLU	2.1
31	1a	1286	A	2.1
50	1t	12	ALA	2.1
10	2P	15	ARG	2.1
42	2l	89	ARG	2.1
3	1D	230	ASP	2.1
42	2l	120	TYR	2.1
49	2s	39	THR	2.1
42	1l	8	ASN	2.1
49	1s	58	VAL	2.1
4	2E	10	GLY	2.1
45	2o	67	LEU	2.1
1	1A	1051	G	2.1
1	2A	2319	G	2.1
3	2D	217	ARG	2.1
10	2P	17	LYS	2.1
1	2A	1026	U	2.1

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Mol	Chain	Res	Type	RSRZ
26	15	60	VAL	2.1
33	2c	13	GLY	2.1
43	1m	87	TYR	2.1
49	1s	76	PRO	2.1
39	2i	7	THR	2.1
10	2P	50	ARG	2.1
31	2a	1286	A	2.1
49	2s	62	ILE	2.1
4	2E	113	PHE	2.1
47	2q	9	VAL	2.1
52	2v	347	GLY	2.1
54	2x	41	C	2.1
31	1a	1353	G	2.1
54	2x	18	G	2.1
43	2m	124	PRO	2.1
26	25	29	THR	2.1
42	1l	13	LYS	2.1
52	1v	429	ALA	2.1
49	1s	15	LEU	2.1
50	2t	72	LEU	2.1
51	1u	21	TYR	2.0
5	1F	66	PRO	2.0
45	2o	25	THR	2.0
23	22	8	LYS	2.0
46	1p	31	LYS	2.0
30	29	16	VAL	2.0
51	2u	11	GLY	2.0
42	1l	119	LYS	2.0
31	2a	1287	A	2.0
34	2d	47	ARG	2.0
35	2e	15	ARG	2.0
35	2e	118	ILE	2.0
40	1j	60	ARG	2.0
44	1n	35	ARG	2.0
1	2A	645	C	2.0
18	1X	92	LEU	2.0
20	1Z	169	GLU	2.0
33	1c	160	ALA	2.0
39	2i	14	VAL	2.0
40	2j	49	VAL	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	5MU	2x	54	21/22	0.00	0.12	237,237,237,237	0
54	7MG	1x	46	24/25	0.28	0.13	203,203,203,203	0
54	7MG	2x	46	24/25	0.33	0.10	241,241,241,241	0
54	5MU	2y	54	21/22	0.36	0.11	276,276,276,276	0
54	PSU	2x	55	20/21	0.38	0.10	240,240,240,240	0
54	PSU	2y	32	20/21	0.40	0.12	220,220,220,220	0
54	5MU	1y	54	21/22	0.48	0.08	236,236,236,236	0
54	7MG	2y	46	24/25	0.52	0.09	261,261,261,261	0
54	MIA	2y	37	22/30	0.54	0.15	208,208,208,208	0
54	PSU	2y	55	20/21	0.54	0.09	279,279,279,279	0
54	PSU	1y	32	20/21	0.55	0.12	188,188,188,188	0
31	5MC	2a	967	21/22	0.58	0.12	216,216,216,216	0
54	PSU	2x	32	20/21	0.60	0.12	214,214,214,214	0
54	MIA	1y	37	22/30	0.62	0.12	175,175,175,175	0
54	4SU	2y	8	20/21	0.66	0.08	259,259,259,259	0
54	7MG	1y	46	24/25	0.67	0.09	222,222,222,222	0
54	PSU	2y	39	20/21	0.67	0.11	212,212,212,212	0
54	4SU	1x	8	20/21	0.68	0.08	199,199,199,199	0
54	PSU	1x	55	20/21	0.69	0.09	194,194,194,194	0
1	5MU	1A	1915	21/22	0.69	0.10	142,142,142,142	0
1	5MU	2A	1915	21/22	0.69	0.08	169,169,169,169	0
1	PSU	2A	1911	20/21	0.70	0.09	158,158,158,158	0
54	5MU	1x	54	21/22	0.70	0.09	193,193,193,193	0
54	MIA	1x	37	22/30	0.72	0.14	163,163,163,163	0
31	2MG	2a	1207	24/25	0.74	0.10	232,232,232,232	0
54	PSU	2x	39	20/21	0.74	0.14	204,204,204,204	0
54	4SU	2x	8	20/21	0.75	0.07	239,239,239,239	0
1	PSU	1A	1917	20/21	0.76	0.09	138,138,138,138	0
54	PSU	1y	55	20/21	0.76	0.06	240,240,240,240	0
31	PSU	1a	516	20/21	0.77	0.08	144,144,144,144	0
54	MIA	2x	37	22/30	0.78	0.11	192,192,192,192	0
54	PSU	1x	32	20/21	0.78	0.10	184,184,184,184	0
1	PSU	1A	1911	20/21	0.78	0.11	130,130,130,130	0
1	PSU	2A	1917	20/21	0.78	0.07	164,164,164,164	0
54	PSU	1x	39	20/21	0.80	0.08	173,173,173,173	0
54	4SU	1y	8	20/21	0.81	0.07	217,217,217,217	0
31	2MG	1a	1207	24/25	0.81	0.09	209,209,209,209	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
31	M2G	2a	966	25/26	0.82	0.14	211,211,211,211	0
54	PSU	1y	39	20/21	0.83	0.07	177,177,177,177	0
31	5MC	2a	1407	21/22	0.83	0.13	157,157,157,157	0
31	PSU	2a	516	20/21	0.83	0.07	166,166,166,166	0
31	5MC	1a	1407	21/22	0.84	0.15	129,129,129,129	0
31	UR3	2a	1498	21/22	0.86	0.11	158,158,158,158	0
1	5MU	1A	1939	21/22	0.89	0.12	74,74,74,74	0
1	5MC	2A	1962	21/22	0.89	0.09	112,112,112,112	0
1	OMC	1A	1920	21/22	0.89	0.09	126,126,126,126	0
1	2MA	1A	2503	23/24	0.90	0.17	58,58,58,58	0
31	5MC	2a	1400	21/22	0.90	0.15	182,182,182,182	0
31	4OC	2a	1402	22/23	0.90	0.10	165,165,165,165	0
31	5MC	2a	1404	21/22	0.90	0.12	156,156,156,156	0
1	OMC	2A	1920	21/22	0.90	0.07	153,153,153,153	0
31	M2G	1a	966	25/26	0.91	0.11	184,184,184,184	0
1	OMG	2A	2251	24/25	0.91	0.09	106,106,106,106	0
42	0TD	2l	92	10/11	0.91	0.14	155,155,155,155	0
42	0TD	1l	92	10/11	0.92	0.12	132,132,132,132	0
31	5MC	1a	1400	21/22	0.92	0.10	153,153,153,153	0
31	5MC	1a	967	21/22	0.92	0.10	188,188,188,188	0
1	PSU	2A	2605	20/21	0.93	0.12	95,95,95,95	0
31	UR3	1a	1498	21/22	0.93	0.09	133,133,133,133	0
1	5MC	1A	1962	21/22	0.93	0.08	81,81,81,81	0
31	MA6	2a	1518	24/25	0.93	0.12	149,149,149,149	0
1	PSU	1A	2605	20/21	0.94	0.10	69,69,69,69	0
31	MA6	2a	1519	24/25	0.94	0.12	148,148,148,148	0
31	7MG	1a	527	24/25	0.94	0.09	133,133,133,133	0
1	5MC	2A	1942	21/22	0.94	0.08	112,112,112,112	0
1	2MU	2A	2552	21/23	0.94	0.07	105,105,105,105	0
31	7MG	2a	527	24/25	0.95	0.08	155,155,155,155	0
1	2MA	2A	2503	23/24	0.95	0.13	95,95,95,95	0
1	2MU	1A	2552	21/23	0.95	0.07	71,71,71,71	0
1	5MC	1A	1942	21/22	0.95	0.07	81,81,81,81	0
31	4OC	1a	1402	22/23	0.95	0.10	134,134,134,134	0
1	5MU	2A	1939	21/22	0.95	0.08	101,101,101,101	0
31	5MC	1a	1404	21/22	0.95	0.09	126,126,126,126	0
31	MA6	1a	1519	24/25	0.96	0.10	122,122,122,122	0
1	OMG	1A	2251	24/25	0.96	0.07	62,62,62,62	0
31	MA6	1a	1518	24/25	0.97	0.09	123,123,123,123	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2i	201	1/1	-0.71	0.23	245,245,245,245	0
56	MG	2a	1767	1/1	-0.67	0.26	276,276,276,276	0
56	MG	2x	108	1/1	-0.66	0.25	245,245,245,245	0
56	MG	2g	203	1/1	-0.64	0.20	214,214,214,214	0
56	MG	1m	201	1/1	-0.61	0.23	216,216,216,216	0
56	MG	2a	1786	1/1	-0.58	0.21	234,234,234,234	0
56	MG	1A	5052	1/1	-0.58	0.18	267,267,267,267	0
56	MG	2a	1766	1/1	-0.57	0.25	261,261,261,261	0
56	MG	2y	108	1/1	-0.57	0.29	245,245,245,245	0
56	MG	2a	1758	1/1	-0.51	0.39	205,205,205,205	0
56	MG	2a	1776	1/1	-0.47	0.33	197,197,197,197	0
56	MG	2v	701	1/1	-0.45	0.25	171,171,171,171	0
56	MG	2y	109	1/1	-0.45	0.25	247,247,247,247	0
56	MG	1a	1684	1/1	-0.43	0.28	202,202,202,202	0
56	MG	2a	1791	1/1	-0.42	0.20	239,239,239,239	0
56	MG	2a	1770	1/1	-0.39	0.19	237,237,237,237	0
56	MG	1a	1844	1/1	-0.37	0.18	270,270,270,270	0
56	MG	2a	1905	1/1	-0.37	0.19	218,218,218,218	0
56	MG	2a	1785	1/1	-0.32	0.21	228,228,228,228	0
56	MG	2a	1801	1/1	-0.32	0.35	215,215,215,215	0
56	MG	1n	101	1/1	-0.32	0.26	207,207,207,207	0
56	MG	2m	202	1/1	-0.31	0.18	230,230,230,230	0
56	MG	2m	201	1/1	-0.29	0.29	166,166,166,166	0
56	MG	2A	3759	1/1	-0.26	0.17	232,232,232,232	0
56	MG	2y	104	1/1	-0.26	0.17	248,248,248,248	0
56	MG	1a	1863	1/1	-0.25	0.44	215,215,215,215	0
56	MG	2a	1765	1/1	-0.25	0.22	250,250,250,250	0
56	MG	1a	1677	1/1	-0.24	0.34	157,157,157,157	0
56	MG	1a	1843	1/1	-0.24	0.20	281,281,281,281	0
56	MG	2A	3573	1/1	-0.24	0.20	282,282,282,282	0
56	MG	2g	202	1/1	-0.22	0.51	185,185,185,185	0
56	MG	1a	1826	1/1	-0.22	0.22	196,196,196,196	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2s	102	1/1	-0.21	0.27	247,247,247,247	0
56	MG	2a	1761	1/1	-0.21	0.29	210,210,210,210	0
56	MG	2a	1684	1/1	-0.21	0.22	161,161,161,161	0
56	MG	2u	101	1/1	-0.20	0.24	221,221,221,221	0
56	MG	2a	1620	1/1	-0.20	0.23	151,151,151,151	0
56	MG	2a	1760	1/1	-0.19	0.23	220,220,220,220	0
56	MG	2A	3597	1/1	-0.17	0.37	120,120,120,120	0
56	MG	2a	1768	1/1	-0.15	0.30	260,260,260,260	0
56	MG	2x	103	1/1	-0.14	0.34	192,192,192,192	0
56	MG	2a	1903	1/1	-0.12	0.19	246,246,246,246	0
56	MG	2A	3246	1/1	-0.11	0.28	153,153,153,153	0
56	MG	2B	214	1/1	-0.08	0.16	145,145,145,145	0
56	MG	2a	1774	1/1	-0.07	0.21	220,220,220,220	0
56	MG	2a	1769	1/1	-0.07	0.19	269,269,269,269	0
56	MG	2y	103	1/1	-0.07	0.27	223,223,223,223	0
56	MG	2a	1669	1/1	-0.06	0.36	140,140,140,140	0
56	MG	2a	1902	1/1	-0.06	0.18	248,248,248,248	0
56	MG	2A	3397	1/1	-0.04	0.19	189,189,189,189	0
56	MG	2A	3675	1/1	-0.04	0.38	123,123,123,123	0
56	MG	2a	1681	1/1	-0.04	0.23	165,165,165,165	0
56	MG	2g	205	1/1	-0.03	0.27	211,211,211,211	0
56	MG	2a	1609	1/1	-0.01	0.60	138,138,138,138	0
56	MG	2A	3250	1/1	-0.01	0.32	158,158,158,158	0
56	MG	2x	104	1/1	-0.00	0.26	219,219,219,219	0
56	MG	2y	106	1/1	0.00	0.14	263,263,263,263	0
56	MG	2a	1657	1/1	-0.00	0.28	138,138,138,138	0
56	MG	2B	203	1/1	-0.00	0.36	131,131,131,131	0
56	MG	2z	103	1/1	-0.00	0.35	179,179,179,179	0
56	MG	1a	1854	1/1	0.01	0.23	229,229,229,229	0
56	MG	1a	1838	1/1	0.02	0.17	231,231,231,231	0
56	MG	1A	5053	1/1	0.02	0.16	275,275,275,275	0
56	MG	2B	218	1/1	0.02	0.16	171,171,171,171	0
56	MG	2a	1688	1/1	0.02	0.25	153,153,153,153	0
56	MG	2i	204	1/1	0.03	0.17	241,241,241,241	0
56	MG	2B	230	1/1	0.03	0.23	151,151,151,151	0
56	MG	1a	1852	1/1	0.03	0.20	224,224,224,224	0
56	MG	2a	1910	1/1	0.04	0.23	240,240,240,240	0
56	MG	2a	1853	1/1	0.04	0.24	269,269,269,269	0
56	MG	1a	1822	1/1	0.04	0.22	215,215,215,215	0
56	MG	1a	1777	1/1	0.04	0.16	128,128,128,128	0
56	MG	1y	106	1/1	0.04	0.19	173,173,173,173	0
56	MG	1a	1832	1/1	0.05	0.28	189,189,189,189	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	1602	1/1	0.05	0.30	151,151,151,151	0
56	MG	2A	3831	1/1	0.07	0.36	128,128,128,128	0
56	MG	2a	1622	1/1	0.08	0.25	156,156,156,156	0
56	MG	1a	1805	1/1	0.09	0.31	140,140,140,140	0
56	MG	1a	1859	1/1	0.09	0.18	207,207,207,207	0
56	MG	2g	204	1/1	0.09	0.28	216,216,216,216	0
56	MG	2a	1782	1/1	0.09	0.24	205,205,205,205	0
56	MG	2a	1771	1/1	0.09	0.30	178,178,178,178	0
56	MG	1a	1856	1/1	0.10	0.13	227,227,227,227	0
56	MG	2A	3572	1/1	0.10	0.17	182,182,182,182	0
56	MG	2B	208	1/1	0.10	0.16	135,135,135,135	0
56	MG	2y	110	1/1	0.11	0.18	248,248,248,248	0
56	MG	2B	217	1/1	0.11	0.25	177,177,177,177	0
56	MG	1a	1837	1/1	0.12	0.19	226,226,226,226	0
56	MG	2a	1673	1/1	0.12	0.20	167,167,167,167	0
56	MG	2A	3808	1/1	0.12	0.23	173,173,173,173	0
56	MG	2l	201	1/1	0.13	0.42	132,132,132,132	0
56	MG	2B	224	1/1	0.13	0.25	128,128,128,128	0
56	MG	2A	3531	1/1	0.14	0.25	138,138,138,138	0
56	MG	1a	1634	1/1	0.14	0.41	117,117,117,117	0
56	MG	1a	1688	1/1	0.14	0.39	131,131,131,131	0
56	MG	2a	1716	1/1	0.15	0.37	135,135,135,135	0
56	MG	2a	1783	1/1	0.16	0.20	174,174,174,174	0
56	MG	2a	1629	1/1	0.16	0.15	187,187,187,187	0
56	MG	2A	3642	1/1	0.16	0.25	132,132,132,132	0
56	MG	1a	1829	1/1	0.16	0.22	194,194,194,194	0
56	MG	1a	1681	1/1	0.17	0.29	158,158,158,158	0
56	MG	2a	1734	1/1	0.17	0.41	127,127,127,127	0
56	MG	2a	1838	1/1	0.17	0.13	244,244,244,244	0
56	MG	2a	1824	1/1	0.18	0.21	158,158,158,158	0
56	MG	2y	101	1/1	0.18	0.31	154,154,154,154	0
56	MG	2a	1921	1/1	0.18	0.19	152,152,152,152	0
56	MG	1a	1678	1/1	0.18	0.21	162,162,162,162	0
56	MG	2a	1754	1/1	0.18	0.30	148,148,148,148	0
56	MG	2A	3252	1/1	0.18	0.24	127,127,127,127	0
56	MG	2B	212	1/1	0.18	0.32	156,156,156,156	0
56	MG	2A	3591	1/1	0.18	0.18	191,191,191,191	0
56	MG	2a	1906	1/1	0.18	0.16	240,240,240,240	0
56	MG	2B	232	1/1	0.19	0.31	144,144,144,144	0
56	MG	2a	1675	1/1	0.19	0.21	166,166,166,166	0
56	MG	2a	1625	1/1	0.19	0.20	148,148,148,148	0
56	MG	2a	1828	1/1	0.19	0.20	163,163,163,163	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3043	1/1	0.19	0.23	113,113,113,113	0
56	MG	2B	216	1/1	0.19	0.27	174,174,174,174	0
56	MG	1a	1828	1/1	0.19	0.25	175,175,175,175	0
56	MG	2a	1709	1/1	0.20	0.24	156,156,156,156	0
56	MG	2A	3815	1/1	0.20	0.24	136,136,136,136	0
56	MG	2a	1663	1/1	0.20	0.48	143,143,143,143	0
56	MG	2u	103	1/1	0.20	0.41	238,238,238,238	0
56	MG	2A	3071	1/1	0.20	0.50	129,129,129,129	0
56	MG	1a	1827	1/1	0.20	0.25	190,190,190,190	0
56	MG	2a	1789	1/1	0.20	0.17	233,233,233,233	0
56	MG	2a	1875	1/1	0.20	0.16	154,154,154,154	0
56	MG	2A	3421	1/1	0.21	0.28	146,146,146,146	0
56	MG	1a	1849	1/1	0.21	0.22	149,149,149,149	0
56	MG	2a	1722	1/1	0.21	0.28	141,141,141,141	0
56	MG	2A	3133	1/1	0.21	0.20	143,143,143,143	0
56	MG	1a	1845	1/1	0.21	0.13	234,234,234,234	0
56	MG	2a	1700	1/1	0.21	0.28	140,140,140,140	0
56	MG	2a	1822	1/1	0.21	0.21	167,167,167,167	0
56	MG	2a	1654	1/1	0.22	0.31	132,132,132,132	0
56	MG	1a	1910	1/1	0.22	0.28	127,127,127,127	0
56	MG	1a	1809	1/1	0.22	0.22	127,127,127,127	0
56	MG	2A	3423	1/1	0.22	0.28	130,130,130,130	0
56	MG	1a	1884	1/1	0.22	0.38	122,122,122,122	0
56	MG	2a	1628	1/1	0.22	0.28	161,161,161,161	0
56	MG	2A	3130	1/1	0.22	0.27	136,136,136,136	0
56	MG	2a	1745	1/1	0.23	0.26	162,162,162,162	0
56	MG	2a	1844	1/1	0.23	0.24	238,238,238,238	0
56	MG	2a	1846	1/1	0.23	0.29	225,225,225,225	0
56	MG	2a	1763	1/1	0.23	0.14	240,240,240,240	0
56	MG	2A	3590	1/1	0.23	0.14	171,171,171,171	0
56	MG	2A	3105	1/1	0.24	0.26	155,155,155,155	0
56	MG	1a	1733	1/1	0.25	0.19	149,149,149,149	0
56	MG	1a	1860	1/1	0.25	0.15	214,214,214,214	0
56	MG	2a	1649	1/1	0.25	0.36	143,143,143,143	0
56	MG	1s	103	1/1	0.25	0.23	203,203,203,203	0
56	MG	1a	1739	1/1	0.25	0.22	144,144,144,144	0
56	MG	1a	1648	1/1	0.25	0.26	135,135,135,135	0
56	MG	1a	1732	1/1	0.25	0.24	144,144,144,144	0
56	MG	2A	3836	1/1	0.26	0.18	205,205,205,205	0
56	MG	1A	4199	1/1	0.26	0.12	218,218,218,218	0
56	MG	2A	3403	1/1	0.26	0.17	219,219,219,219	0
56	MG	2f	301	1/1	0.26	0.26	138,138,138,138	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3517	1/1	0.27	0.26	132,132,132,132	0
56	MG	1a	1738	1/1	0.27	0.26	148,148,148,148	0
56	MG	2a	1678	1/1	0.27	0.22	167,167,167,167	0
56	MG	2a	1884	1/1	0.28	0.25	168,168,168,168	0
56	MG	2A	3096	1/1	0.28	0.51	98,98,98,98	0
56	MG	1a	1868	1/1	0.28	0.26	214,214,214,214	0
56	MG	2A	3113	1/1	0.28	0.23	140,140,140,140	0
56	MG	2a	1735	1/1	0.28	0.40	132,132,132,132	0
56	MG	2a	1778	1/1	0.28	0.24	162,162,162,162	0
56	MG	2a	1781	1/1	0.28	0.14	230,230,230,230	0
56	MG	1a	1914	1/1	0.28	0.17	193,193,193,193	0
56	MG	2A	3424	1/1	0.29	0.42	142,142,142,142	0
56	MG	2B	201	1/1	0.29	0.35	115,115,115,115	0
56	MG	23	103	1/1	0.29	0.30	112,112,112,112	0
56	MG	2a	1742	1/1	0.29	0.32	148,148,148,148	0
56	MG	2a	1650	1/1	0.30	0.43	136,136,136,136	0
56	MG	1a	1835	1/1	0.30	0.17	221,221,221,221	0
56	MG	1A	4312	1/1	0.30	0.37	115,115,115,115	0
56	MG	2a	1695	1/1	0.30	0.28	146,146,146,146	0
56	MG	2a	1887	1/1	0.30	0.23	134,134,134,134	0
56	MG	2A	3576	1/1	0.30	0.24	151,151,151,151	0
56	MG	2a	1608	1/1	0.31	0.43	135,135,135,135	0
56	MG	2a	1794	1/1	0.31	0.15	168,168,168,168	0
56	MG	2A	3610	1/1	0.32	0.41	114,114,114,114	0
56	MG	2a	1863	1/1	0.32	0.26	162,162,162,162	0
56	MG	2A	3640	1/1	0.32	0.29	127,127,127,127	0
56	MG	2A	3098	1/1	0.32	0.16	159,159,159,159	0
56	MG	1a	1644	1/1	0.32	0.46	120,120,120,120	0
56	MG	1a	1820	1/1	0.32	0.32	205,205,205,205	0
56	MG	2a	1845	1/1	0.33	0.24	229,229,229,229	0
56	MG	1u	101	1/1	0.33	0.34	211,211,211,211	0
56	MG	2a	1756	1/1	0.33	0.22	205,205,205,205	0
56	MG	2a	1607	1/1	0.33	0.41	142,142,142,142	0
56	MG	2a	1909	1/1	0.33	0.37	225,225,225,225	0
56	MG	2a	1868	1/1	0.33	0.12	144,144,144,144	0
56	MG	2a	1873	1/1	0.33	0.17	157,157,157,157	0
56	MG	2A	3247	1/1	0.33	0.32	113,113,113,113	0
56	MG	2g	201	1/1	0.33	0.18	229,229,229,229	0
56	MG	1a	1819	1/1	0.33	0.34	204,204,204,204	0
56	MG	2A	3624	1/1	0.33	0.29	156,156,156,156	0
56	MG	2A	3390	1/1	0.34	0.32	116,116,116,116	0
56	MG	1a	1637	1/1	0.34	0.29	119,119,119,119	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1734	1/1	0.34	0.25	147,147,147,147	0
56	MG	2a	1680	1/1	0.34	0.21	162,162,162,162	0
56	MG	2a	1879	1/1	0.34	0.21	150,150,150,150	0
56	MG	1a	1740	1/1	0.34	0.17	151,151,151,151	0
56	MG	2A	3351	1/1	0.34	0.30	146,146,146,146	0
56	MG	2a	1647	1/1	0.34	0.31	139,139,139,139	0
56	MG	1A	4536	1/1	0.35	0.29	115,115,115,115	0
56	MG	2a	1662	1/1	0.35	0.22	150,150,150,150	0
56	MG	2p	103	1/1	0.35	0.20	152,152,152,152	0
56	MG	2a	1798	1/1	0.35	0.21	239,239,239,239	0
56	MG	1a	1735	1/1	0.35	0.26	150,150,150,150	0
56	MG	2a	1737	1/1	0.35	0.35	132,132,132,132	0
56	MG	2a	1696	1/1	0.36	0.20	161,161,161,161	0
56	MG	2a	1775	1/1	0.36	0.19	208,208,208,208	0
56	MG	2A	3673	1/1	0.36	0.30	133,133,133,133	0
56	MG	2a	1702	1/1	0.36	0.23	156,156,156,156	0
56	MG	1a	1640	1/1	0.36	0.38	115,115,115,115	0
56	MG	1A	4516	1/1	0.36	0.26	118,118,118,118	0
56	MG	1a	1803	1/1	0.36	0.35	125,125,125,125	0
56	MG	1a	1782	1/1	0.37	0.29	127,127,127,127	0
56	MG	2A	3800	1/1	0.37	0.25	151,151,151,151	0
56	MG	2a	1913	1/1	0.37	0.15	246,246,246,246	0
56	MG	2A	3574	1/1	0.37	0.24	253,253,253,253	0
56	MG	2d	301	1/1	0.37	0.25	147,147,147,147	0
56	MG	2q	201	1/1	0.37	0.23	124,124,124,124	0
56	MG	1a	1730	1/1	0.37	0.34	162,162,162,162	0
56	MG	2A	3388	1/1	0.38	0.26	117,117,117,117	0
56	MG	1a	1685	1/1	0.38	0.20	173,173,173,173	0
56	MG	1a	1670	1/1	0.38	0.35	137,137,137,137	0
56	MG	2a	1732	1/1	0.38	0.31	110,110,110,110	0
56	MG	2a	1812	1/1	0.38	0.28	126,126,126,126	0
56	MG	1a	1765	1/1	0.38	0.24	125,125,125,125	0
56	MG	2a	1637	1/1	0.38	0.15	146,146,146,146	0
56	MG	2A	3067	1/1	0.38	0.39	123,123,123,123	0
56	MG	2a	1912	1/1	0.38	0.21	137,137,137,137	0
56	MG	2a	1705	1/1	0.38	0.16	150,150,150,150	0
56	MG	2a	1729	1/1	0.39	0.23	124,124,124,124	0
56	MG	1b	305	1/1	0.39	0.10	166,166,166,166	0
56	MG	2A	3502	1/1	0.39	0.34	104,104,104,104	0
56	MG	2A	3689	1/1	0.39	0.23	161,161,161,161	0
56	MG	2a	1626	1/1	0.39	0.19	157,157,157,157	0
56	MG	2a	1918	1/1	0.39	0.29	138,138,138,138	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2B	221	1/1	0.39	0.43	122,122,122,122	0
56	MG	1a	1906	1/1	0.39	0.25	121,121,121,121	0
56	MG	2a	1713	1/1	0.39	0.26	143,143,143,143	0
56	MG	2A	3764	1/1	0.39	0.35	151,151,151,151	0
56	MG	2a	1664	1/1	0.39	0.57	150,150,150,150	0
56	MG	2a	1773	1/1	0.39	0.19	228,228,228,228	0
56	MG	2a	1797	1/1	0.40	0.13	238,238,238,238	0
56	MG	1a	1909	1/1	0.40	0.17	136,136,136,136	0
56	MG	2B	204	1/1	0.40	0.28	130,130,130,130	0
56	MG	2e	202	1/1	0.40	0.38	153,153,153,153	0
56	MG	2A	3762	1/1	0.41	0.35	124,124,124,124	0
56	MG	2g	206	1/1	0.41	0.17	216,216,216,216	0
56	MG	2A	3251	1/1	0.41	0.17	123,123,123,123	0
56	MG	2A	3398	1/1	0.41	0.15	155,155,155,155	0
56	MG	2B	207	1/1	0.41	0.22	161,161,161,161	0
56	MG	1a	1823	1/1	0.41	0.38	211,211,211,211	0
56	MG	1a	1708	1/1	0.41	0.24	108,108,108,108	0
56	MG	2a	1691	1/1	0.41	0.28	139,139,139,139	0
56	MG	2A	3248	1/1	0.41	0.24	123,123,123,123	0
56	MG	2A	3832	1/1	0.41	0.35	121,121,121,121	0
56	MG	2a	1764	1/1	0.41	0.14	270,270,270,270	0
56	MG	2A	3201	1/1	0.41	0.37	115,115,115,115	0
56	MG	2p	102	1/1	0.42	0.29	148,148,148,148	0
56	MG	2A	3613	1/1	0.42	0.25	122,122,122,122	0
56	MG	2a	1614	1/1	0.42	0.20	165,165,165,165	0
56	MG	1A	5057	1/1	0.42	0.11	170,170,170,170	0
56	MG	2a	1621	1/1	0.42	0.15	162,162,162,162	0
56	MG	2a	1780	1/1	0.42	0.29	211,211,211,211	0
56	MG	1A	5054	1/1	0.42	0.22	142,142,142,142	0
56	MG	2a	1698	1/1	0.42	0.36	118,118,118,118	0
56	MG	2A	3676	1/1	0.42	0.37	125,125,125,125	0
56	MG	2a	1706	1/1	0.43	0.20	150,150,150,150	0
56	MG	1a	1895	1/1	0.43	0.20	121,121,121,121	0
56	MG	2A	3692	1/1	0.43	0.21	133,133,133,133	0
56	MG	2B	223	1/1	0.43	0.21	129,129,129,129	0
56	MG	2a	1653	1/1	0.43	0.37	141,141,141,141	0
56	MG	1a	1669	1/1	0.43	0.35	124,124,124,124	0
56	MG	2a	1703	1/1	0.43	0.20	157,157,157,157	0
56	MG	1a	1831	1/1	0.43	0.45	152,152,152,152	0
56	MG	2a	1877	1/1	0.43	0.17	151,151,151,151	0
56	MG	1a	1647	1/1	0.44	0.49	118,118,118,118	0
56	MG	2a	1899	1/1	0.44	0.19	125,125,125,125	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3754	1/1	0.44	0.28	121,121,121,121	0
56	MG	1a	1802	1/1	0.44	0.19	142,142,142,142	0
56	MG	2A	3533	1/1	0.44	0.32	124,124,124,124	0
56	MG	2a	1636	1/1	0.44	0.19	150,150,150,150	0
56	MG	2A	3142	1/1	0.44	0.28	102,102,102,102	0
56	MG	2A	3783	1/1	0.44	0.16	139,139,139,139	0
56	MG	1A	4890	1/1	0.44	0.36	114,114,114,114	0
56	MG	1A	5051	1/1	0.44	0.12	192,192,192,192	0
56	MG	2A	3615	1/1	0.44	0.28	138,138,138,138	0
56	MG	2d	304	1/1	0.45	0.23	161,161,161,161	0
56	MG	1A	4682	1/1	0.45	0.40	116,116,116,116	0
56	MG	1a	1639	1/1	0.45	0.31	112,112,112,112	0
56	MG	1a	1662	1/1	0.45	0.48	123,123,123,123	0
56	MG	2A	3094	1/1	0.45	0.27	113,113,113,113	0
56	MG	2A	3416	1/1	0.45	0.23	114,114,114,114	0
56	MG	2b	303	1/1	0.45	0.17	185,185,185,185	0
56	MG	2z	101	1/1	0.45	0.33	177,177,177,177	0
56	MG	2A	3028	1/1	0.45	0.26	133,133,133,133	0
56	MG	1i	201	1/1	0.46	0.23	212,212,212,212	0
56	MG	2a	1687	1/1	0.46	0.24	162,162,162,162	0
56	MG	1a	1899	1/1	0.46	0.14	149,149,149,149	0
56	MG	2a	1674	1/1	0.46	0.41	127,127,127,127	0
56	MG	2A	3111	1/1	0.46	0.19	137,137,137,137	0
56	MG	2a	1746	1/1	0.46	0.43	120,120,120,120	0
56	MG	2A	3719	1/1	0.46	0.23	134,134,134,134	0
56	MG	2A	3198	1/1	0.46	0.53	100,100,100,100	0
56	MG	1A	4518	1/1	0.46	0.20	122,122,122,122	0
56	MG	2a	1683	1/1	0.46	0.26	158,158,158,158	0
56	MG	1a	1671	1/1	0.47	0.37	139,139,139,139	0
56	MG	2a	1659	1/1	0.47	0.25	117,117,117,117	0
56	MG	2l	205	1/1	0.47	0.19	148,148,148,148	0
56	MG	1a	1645	1/1	0.47	0.20	127,127,127,127	0
56	MG	2a	1908	1/1	0.47	0.19	230,230,230,230	0
56	MG	2A	3718	1/1	0.47	0.22	129,129,129,129	0
56	MG	2Z	401	1/1	0.47	0.20	142,142,142,142	0
56	MG	2A	3428	1/1	0.47	0.12	166,166,166,166	0
56	MG	2A	3536	1/1	0.47	0.21	123,123,123,123	0
56	MG	2A	3755	1/1	0.47	0.21	130,130,130,130	0
56	MG	2a	1712	1/1	0.47	0.18	148,148,148,148	0
56	MG	1B	206	1/1	0.47	0.24	71,71,71,71	0
56	MG	2A	3245	1/1	0.48	0.23	111,111,111,111	0
56	MG	1a	1682	1/1	0.48	0.09	197,197,197,197	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	1718	1/1	0.48	0.25	136,136,136,136	0
56	MG	2A	3828	1/1	0.48	0.24	126,126,126,126	0
56	MG	2A	3486	1/1	0.48	0.20	141,141,141,141	0
56	MG	1a	1654	1/1	0.48	0.26	120,120,120,120	0
56	MG	1a	1707	1/1	0.48	0.14	125,125,125,125	0
56	MG	2a	1661	1/1	0.48	0.14	145,145,145,145	0
56	MG	2a	1606	1/1	0.48	0.27	137,137,137,137	0
56	MG	1l	301	1/1	0.49	0.33	133,133,133,133	0
56	MG	2a	1699	1/1	0.49	0.29	138,138,138,138	0
56	MG	2A	3477	1/1	0.49	0.15	126,126,126,126	0
56	MG	2a	1800	1/1	0.49	0.16	220,220,220,220	0
56	MG	1a	1855	1/1	0.49	0.10	230,230,230,230	0
56	MG	2A	3553	1/1	0.49	0.29	106,106,106,106	0
56	MG	2A	3385	1/1	0.49	0.27	120,120,120,120	0
56	MG	2A	3515	1/1	0.49	0.29	115,115,115,115	0
56	MG	2B	231	1/1	0.49	0.13	152,152,152,152	0
56	MG	2a	1668	1/1	0.49	0.27	151,151,151,151	0
56	MG	2A	3680	1/1	0.49	0.35	114,114,114,114	0
56	MG	2Q	202	1/1	0.49	0.40	132,132,132,132	0
56	MG	2a	1790	1/1	0.49	0.12	249,249,249,249	0
56	MG	1a	1916	1/1	0.49	0.15	146,146,146,146	0
56	MG	2a	1753	1/1	0.50	0.22	138,138,138,138	0
56	MG	2x	105	1/1	0.50	0.11	237,237,237,237	0
56	MG	1a	1636	1/1	0.50	0.25	120,120,120,120	0
56	MG	2A	3491	1/1	0.50	0.13	133,133,133,133	0
56	MG	2A	3540	1/1	0.50	0.14	148,148,148,148	0
56	MG	2A	3792	1/1	0.50	0.23	130,130,130,130	0
56	MG	2A	3081	1/1	0.50	0.23	125,125,125,125	0
56	MG	2y	107	1/1	0.50	0.23	207,207,207,207	0
56	MG	1a	1691	1/1	0.50	0.35	117,117,117,117	0
56	MG	2a	1624	1/1	0.50	0.25	137,137,137,137	0
56	MG	2B	222	1/1	0.50	0.10	133,133,133,133	0
56	MG	2A	3408	1/1	0.50	0.28	129,129,129,129	0
56	MG	1a	1752	1/1	0.50	0.46	128,128,128,128	0
56	MG	1T	204	1/1	0.51	0.18	115,115,115,115	0
56	MG	2a	1665	1/1	0.51	0.11	139,139,139,139	0
56	MG	2a	1666	1/1	0.51	0.18	133,133,133,133	0
56	MG	2a	1741	1/1	0.51	0.15	174,174,174,174	0
56	MG	2A	3620	1/1	0.51	0.21	122,122,122,122	0
56	MG	2A	3019	1/1	0.51	0.16	112,112,112,112	0
56	MG	2a	1639	1/1	0.51	0.27	141,141,141,141	0
56	MG	2A	3331	1/1	0.51	0.39	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	1610	1/1	0.51	0.33	141,141,141,141	0
56	MG	2a	1676	1/1	0.51	0.20	163,163,163,163	0
56	MG	2A	3023	1/1	0.51	0.32	120,120,120,120	0
56	MG	2A	3585	1/1	0.51	0.15	114,114,114,114	0
56	MG	1A	4929	1/1	0.51	0.15	201,201,201,201	0
56	MG	1a	1763	1/1	0.51	0.32	109,109,109,109	0
56	MG	1a	1783	1/1	0.51	0.17	135,135,135,135	0
56	MG	1y	102	1/1	0.51	0.42	123,123,123,123	0
56	MG	2A	3612	1/1	0.51	0.34	136,136,136,136	0
56	MG	1y	105	1/1	0.51	0.11	180,180,180,180	0
56	MG	2A	3208	1/1	0.52	0.20	118,118,118,118	0
56	MG	2a	1840	1/1	0.52	0.16	228,228,228,228	0
56	MG	2A	3414	1/1	0.52	0.24	117,117,117,117	0
56	MG	2a	1686	1/1	0.52	0.24	150,150,150,150	0
56	MG	1A	4891	1/1	0.52	0.12	109,109,109,109	0
56	MG	2x	106	1/1	0.52	0.09	211,211,211,211	0
56	MG	1a	1821	1/1	0.52	0.22	202,202,202,202	0
56	MG	2A	3253	1/1	0.52	0.25	128,128,128,128	0
56	MG	2A	3763	1/1	0.52	0.22	133,133,133,133	0
56	MG	2B	220	1/1	0.52	0.29	140,140,140,140	0
56	MG	1g	302	1/1	0.52	0.19	194,194,194,194	0
56	MG	2a	1627	1/1	0.52	0.15	153,153,153,153	0
56	MG	2a	1807	1/1	0.52	0.26	122,122,122,122	0
56	MG	2A	3206	1/1	0.52	0.20	120,120,120,120	0
56	MG	2A	3404	1/1	0.52	0.24	135,135,135,135	0
56	MG	2A	3631	1/1	0.52	0.22	113,113,113,113	0
56	MG	2a	1738	1/1	0.52	0.37	138,138,138,138	0
56	MG	2a	1874	1/1	0.53	0.13	155,155,155,155	0
56	MG	2A	3220	1/1	0.53	0.22	115,115,115,115	0
56	MG	2A	3818	1/1	0.53	0.11	136,136,136,136	0
56	MG	2A	3225	1/1	0.53	0.27	113,113,113,113	0
56	MG	2A	3288	1/1	0.53	0.26	102,102,102,102	0
56	MG	2A	3407	1/1	0.53	0.32	117,117,117,117	0
56	MG	2a	1721	1/1	0.53	0.17	145,145,145,145	0
56	MG	1a	1833	1/1	0.53	0.14	201,201,201,201	0
56	MG	1a	1745	1/1	0.53	0.28	122,122,122,122	0
56	MG	2a	1643	1/1	0.53	0.28	144,144,144,144	0
56	MG	2A	3367	1/1	0.53	0.32	92,92,92,92	0
56	MG	2a	1617	1/1	0.53	0.31	127,127,127,127	0
56	MG	2A	3122	1/1	0.53	0.36	117,117,117,117	0
56	MG	2A	3203	1/1	0.53	0.28	124,124,124,124	0
56	MG	2A	3611	1/1	0.53	0.24	141,141,141,141	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1918	1/1	0.53	0.27	142,142,142,142	0
56	MG	2a	1796	1/1	0.53	0.12	111,111,111,111	0
56	MG	2a	1869	1/1	0.53	0.32	151,151,151,151	0
56	MG	2z	102	1/1	0.53	0.20	175,175,175,175	0
56	MG	2A	3084	1/1	0.53	0.35	115,115,115,115	0
56	MG	1a	1864	1/1	0.54	0.30	211,211,211,211	0
56	MG	2A	3593	1/1	0.54	0.17	129,129,129,129	0
56	MG	1A	4535	1/1	0.54	0.10	77,77,77,77	0
56	MG	2A	3365	1/1	0.54	0.51	90,90,90,90	0
56	MG	2A	3131	1/1	0.54	0.28	130,130,130,130	0
56	MG	2A	3022	1/1	0.54	0.14	126,126,126,126	0
56	MG	1A	4819	1/1	0.54	0.10	119,119,119,119	0
56	MG	1a	1771	1/1	0.54	0.15	135,135,135,135	0
56	MG	1A	4023	1/1	0.54	0.32	110,110,110,110	0
56	MG	1a	1631	1/1	0.54	0.19	126,126,126,126	0
56	MG	2A	3205	1/1	0.54	0.22	122,122,122,122	0
56	MG	1a	1710	1/1	0.54	0.28	115,115,115,115	0
56	MG	2A	3116	1/1	0.54	0.26	127,127,127,127	0
56	MG	2a	1640	1/1	0.54	0.40	143,143,143,143	0
56	MG	2a	1885	1/1	0.54	0.17	162,162,162,162	0
56	MG	2a	1615	1/1	0.54	0.44	145,145,145,145	0
56	MG	2a	1670	1/1	0.54	0.14	163,163,163,163	0
56	MG	2A	3109	1/1	0.55	0.23	137,137,137,137	0
56	MG	1a	1857	1/1	0.55	0.14	211,211,211,211	0
56	MG	2a	1804	1/1	0.55	0.28	107,107,107,107	0
56	MG	1a	1900	1/1	0.55	0.15	134,134,134,134	0
56	MG	2a	1677	1/1	0.55	0.14	166,166,166,166	0
56	MG	1a	1871	1/1	0.55	0.14	199,199,199,199	0
56	MG	2A	3057	1/1	0.55	0.18	96,96,96,96	0
56	MG	2a	1658	1/1	0.56	0.16	122,122,122,122	0
56	MG	1b	302	1/1	0.56	0.19	165,165,165,165	0
56	MG	2A	3598	1/1	0.56	0.26	121,121,121,121	0
56	MG	2A	3387	1/1	0.56	0.17	123,123,123,123	0
56	MG	2A	3798	1/1	0.56	0.34	98,98,98,98	0
56	MG	1A	4831	1/1	0.56	0.28	109,109,109,109	0
56	MG	2a	1847	1/1	0.56	0.14	160,160,160,160	0
56	MG	2B	202	1/1	0.56	0.23	137,137,137,137	0
56	MG	28	104	1/1	0.56	0.28	110,110,110,110	0
56	MG	2A	3681	1/1	0.56	0.30	119,119,119,119	0
56	MG	2A	3810	1/1	0.56	0.12	145,145,145,145	0
56	MG	1A	4973	1/1	0.56	0.21	80,80,80,80	0
56	MG	1A	5050	1/1	0.56	0.12	173,173,173,173	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2v	702	1/1	0.56	0.14	183,183,183,183	0
56	MG	2B	227	1/1	0.56	0.47	132,132,132,132	0
56	MG	1A	4367	1/1	0.57	0.36	56,56,56,56	0
56	MG	2A	3552	1/1	0.57	0.29	105,105,105,105	0
56	MG	2A	3464	1/1	0.57	0.34	129,129,129,129	0
56	MG	1a	1768	1/1	0.57	0.18	122,122,122,122	0
56	MG	2a	1915	1/1	0.57	0.17	123,123,123,123	0
56	MG	2A	3405	1/1	0.57	0.40	130,130,130,130	0
56	MG	1a	1902	1/1	0.57	0.24	135,135,135,135	0
56	MG	2a	1865	1/1	0.57	0.28	119,119,119,119	0
56	MG	2A	3016	1/1	0.57	0.28	118,118,118,118	0
56	MG	1a	1814	1/1	0.57	0.17	158,158,158,158	0
56	MG	1a	1638	1/1	0.57	0.38	117,117,117,117	0
56	MG	2Z	404	1/1	0.57	0.27	132,132,132,132	0
56	MG	2x	107	1/1	0.57	0.13	131,131,131,131	0
56	MG	2A	3643	1/1	0.57	0.24	131,131,131,131	0
56	MG	2A	3644	1/1	0.57	0.17	155,155,155,155	0
56	MG	2a	1803	1/1	0.57	0.27	127,127,127,127	0
56	MG	2a	1740	1/1	0.57	0.12	143,143,143,143	0
56	MG	2a	1805	1/1	0.57	0.22	114,114,114,114	0
56	MG	2B	213	1/1	0.57	0.26	151,151,151,151	0
56	MG	2A	3524	1/1	0.57	0.36	103,103,103,103	0
56	MG	2A	3529	1/1	0.57	0.29	118,118,118,118	0
56	MG	2A	3172	1/1	0.57	0.22	91,91,91,91	0
56	MG	2A	3241	1/1	0.57	0.21	124,124,124,124	0
56	MG	2A	3607	1/1	0.57	0.25	127,127,127,127	0
56	MG	1a	1744	1/1	0.57	0.24	132,132,132,132	0
56	MG	1A	4314	1/1	0.58	0.24	107,107,107,107	0
56	MG	2A	3199	1/1	0.58	0.27	111,111,111,111	0
56	MG	2B	229	1/1	0.58	0.14	150,150,150,150	0
56	MG	2a	1671	1/1	0.58	0.12	173,173,173,173	0
56	MG	2a	1714	1/1	0.58	0.21	143,143,143,143	0
56	MG	2A	3112	1/1	0.58	0.14	136,136,136,136	0
56	MG	1A	4481	1/1	0.58	0.36	78,78,78,78	0
56	MG	2A	3465	1/1	0.58	0.20	129,129,129,129	0
56	MG	2y	105	1/1	0.58	0.15	262,262,262,262	0
56	MG	2A	3474	1/1	0.58	0.22	125,125,125,125	0
56	MG	2a	1900	1/1	0.58	0.07	174,174,174,174	0
56	MG	1a	1780	1/1	0.58	0.29	124,124,124,124	0
56	MG	2a	1731	1/1	0.58	0.21	103,103,103,103	0
56	MG	2A	3160	1/1	0.58	0.28	103,103,103,103	0
56	MG	2A	3337	1/1	0.58	0.28	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1781	1/1	0.58	0.33	110,110,110,110	0
56	MG	2A	3564	1/1	0.58	0.23	102,102,102,102	0
56	MG	2A	3801	1/1	0.59	0.22	128,128,128,128	0
56	MG	2A	3107	1/1	0.59	0.22	166,166,166,166	0
56	MG	29	102	1/1	0.59	0.25	128,128,128,128	0
56	MG	2a	1630	1/1	0.59	0.32	123,123,123,123	0
56	MG	2A	3179	1/1	0.59	0.20	139,139,139,139	0
56	MG	2a	1697	1/1	0.59	0.32	136,136,136,136	0
56	MG	2A	3108	1/1	0.59	0.18	139,139,139,139	0
56	MG	1a	1804	1/1	0.59	0.18	130,130,130,130	0
56	MG	1d	301	1/1	0.59	0.26	128,128,128,128	0
56	MG	1a	1687	1/1	0.59	0.39	118,118,118,118	0
56	MG	1a	1912	1/1	0.59	0.29	131,131,131,131	0
56	MG	2A	3008	1/1	0.59	0.26	94,94,94,94	0
56	MG	2a	1897	1/1	0.59	0.11	153,153,153,153	0
56	MG	2A	3012	1/1	0.59	0.26	108,108,108,108	0
56	MG	2a	1779	1/1	0.59	0.27	183,183,183,183	0
56	MG	2a	1747	1/1	0.59	0.32	122,122,122,122	0
56	MG	1a	1792	1/1	0.59	0.51	105,105,105,105	0
56	MG	2A	3358	1/1	0.59	0.18	97,97,97,97	0
56	MG	2l	204	1/1	0.59	0.28	136,136,136,136	0
56	MG	2A	3782	1/1	0.59	0.15	139,139,139,139	0
56	MG	1a	1775	1/1	0.59	0.21	131,131,131,131	0
56	MG	2A	3020	1/1	0.59	0.23	103,103,103,103	0
56	MG	1a	1903	1/1	0.59	0.18	121,121,121,121	0
56	MG	1A	5055	1/1	0.59	0.18	133,133,133,133	0
56	MG	2A	3768	1/1	0.60	0.15	90,90,90,90	0
56	MG	1a	1641	1/1	0.60	0.21	124,124,124,124	0
56	MG	1A	4488	1/1	0.60	0.29	85,85,85,85	0
56	MG	2A	3087	1/1	0.60	0.18	121,121,121,121	0
56	MG	1a	1743	1/1	0.60	0.20	139,139,139,139	0
56	MG	1a	1686	1/1	0.60	0.42	116,116,116,116	0
56	MG	2A	3310	1/1	0.60	0.16	117,117,117,117	0
56	MG	2A	3243	1/1	0.60	0.27	109,109,109,109	0
56	MG	2A	3435	1/1	0.60	0.29	97,97,97,97	0
56	MG	1A	4394	1/1	0.60	0.50	60,60,60,60	0
56	MG	2Y	201	1/1	0.60	0.19	113,113,113,113	0
56	MG	1a	1746	1/1	0.60	0.13	154,154,154,154	0
56	MG	2A	3473	1/1	0.60	0.23	131,131,131,131	0
56	MG	2A	3018	1/1	0.60	0.18	124,124,124,124	0
56	MG	1a	1659	1/1	0.60	0.18	118,118,118,118	0
56	MG	2l	206	1/1	0.61	0.21	145,145,145,145	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3578	1/1	0.61	0.24	135,135,135,135	0
56	MG	1a	1679	1/1	0.61	0.14	163,163,163,163	0
56	MG	1A	4927	1/1	0.61	0.17	87,87,87,87	0
56	MG	2A	3097	1/1	0.61	0.47	99,99,99,99	0
56	MG	1a	1839	1/1	0.61	0.18	146,146,146,146	0
56	MG	2s	101	1/1	0.61	0.12	250,250,250,250	0
56	MG	2a	1648	1/1	0.61	0.29	124,124,124,124	0
56	MG	2a	1821	1/1	0.61	0.18	143,143,143,143	0
56	MG	2h	205	1/1	0.61	0.14	152,152,152,152	0
56	MG	2A	3399	1/1	0.61	0.13	194,194,194,194	0
56	MG	1B	203	1/1	0.61	0.10	95,95,95,95	0
56	MG	2a	1749	1/1	0.61	0.36	115,115,115,115	0
56	MG	1A	4035	1/1	0.61	0.28	73,73,73,73	0
56	MG	1A	4790	1/1	0.61	0.24	99,99,99,99	0
56	MG	2A	3440	1/1	0.62	0.35	99,99,99,99	0
56	MG	2a	1723	1/1	0.62	0.38	118,118,118,118	0
56	MG	2A	3785	1/1	0.62	0.19	119,119,119,119	0
56	MG	20	104	1/1	0.62	0.23	122,122,122,122	0
56	MG	2A	3412	1/1	0.62	0.28	105,105,105,105	0
56	MG	2A	3366	1/1	0.62	0.53	82,82,82,82	0
56	MG	2u	102	1/1	0.62	0.13	241,241,241,241	0
56	MG	1a	1817	1/1	0.62	0.21	148,148,148,148	0
56	MG	2A	3119	1/1	0.62	0.29	113,113,113,113	0
56	MG	2A	3583	1/1	0.62	0.31	122,122,122,122	0
56	MG	1a	1757	1/1	0.62	0.43	107,107,107,107	0
56	MG	2A	3586	1/1	0.62	0.20	120,120,120,120	0
56	MG	2A	3735	1/1	0.62	0.26	101,101,101,101	0
56	MG	2a	1704	1/1	0.62	0.18	160,160,160,160	0
56	MG	2A	3625	1/1	0.62	0.19	146,146,146,146	0
56	MG	2a	1893	1/1	0.62	0.19	123,123,123,123	0
56	MG	2A	3628	1/1	0.62	0.19	119,119,119,119	0
56	MG	2A	3588	1/1	0.62	0.32	127,127,127,127	0
56	MG	2A	3538	1/1	0.62	0.23	134,134,134,134	0
56	MG	2a	1835	1/1	0.62	0.10	152,152,152,152	0
56	MG	1a	1747	1/1	0.62	0.12	149,149,149,149	0
56	MG	2l	202	1/1	0.62	0.22	150,150,150,150	0
56	MG	2A	3425	1/1	0.62	0.31	102,102,102,102	0
56	MG	2a	1841	1/1	0.62	0.16	224,224,224,224	0
56	MG	1Z	302	1/1	0.62	0.20	98,98,98,98	0
56	MG	2A	3774	1/1	0.62	0.23	116,116,116,116	0
56	MG	1a	1776	1/1	0.62	0.19	122,122,122,122	0
56	MG	2m	203	1/1	0.62	0.24	238,238,238,238	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	1711	1/1	0.63	0.14	149,149,149,149	0
56	MG	1b	301	1/1	0.63	0.17	165,165,165,165	0
56	MG	1A	5058	1/1	0.63	0.10	100,100,100,100	0
56	MG	1A	4050	1/1	0.63	0.29	100,100,100,100	0
56	MG	2A	3622	1/1	0.63	0.19	137,137,137,137	0
56	MG	1a	1816	1/1	0.63	0.20	183,183,183,183	0
56	MG	2a	1612	1/1	0.63	0.23	141,141,141,141	0
56	MG	2A	3461	1/1	0.63	0.20	111,111,111,111	0
56	MG	1x	301	1/1	0.63	0.15	193,193,193,193	0
56	MG	1a	1611	1/1	0.63	0.12	99,99,99,99	0
56	MG	2f	304	1/1	0.63	0.25	137,137,137,137	0
56	MG	2A	3329	1/1	0.63	0.41	87,87,87,87	0
56	MG	2A	3841	1/1	0.63	0.21	146,146,146,146	0
56	MG	2A	3389	1/1	0.63	0.25	117,117,117,117	0
56	MG	1a	1712	1/1	0.63	0.25	114,114,114,114	0
56	MG	2A	3391	1/1	0.63	0.20	122,122,122,122	0
56	MG	2a	1888	1/1	0.63	0.14	136,136,136,136	0
56	MG	2A	3661	1/1	0.63	0.31	105,105,105,105	0
56	MG	1A	4503	1/1	0.63	0.15	102,102,102,102	0
56	MG	2Z	403	1/1	0.63	0.18	130,130,130,130	0
56	MG	2A	3570	1/1	0.63	0.20	167,167,167,167	0
56	MG	2a	1743	1/1	0.63	0.19	151,151,151,151	0
56	MG	2A	3571	1/1	0.63	0.19	172,172,172,172	0
56	MG	2a	1839	1/1	0.63	0.16	241,241,241,241	0
56	MG	2A	3090	1/1	0.63	0.33	110,110,110,110	0
56	MG	2A	3503	1/1	0.63	0.31	103,103,103,103	0
56	MG	2B	215	1/1	0.63	0.12	164,164,164,164	0
56	MG	2A	3687	1/1	0.63	0.32	118,118,118,118	0
56	MG	2A	3787	1/1	0.64	0.13	125,125,125,125	0
56	MG	2A	3176	1/1	0.64	0.22	114,114,114,114	0
56	MG	1a	1758	1/1	0.64	0.27	111,111,111,111	0
56	MG	1A	4049	1/1	0.64	0.25	97,97,97,97	0
56	MG	2a	1814	1/1	0.64	0.15	142,142,142,142	0
56	MG	2A	3480	1/1	0.64	0.13	132,132,132,132	0
56	MG	1A	4054	1/1	0.64	0.15	95,95,95,95	0
56	MG	1a	1655	1/1	0.64	0.28	120,120,120,120	0
56	MG	1A	4548	1/1	0.64	0.22	131,131,131,131	0
56	MG	2A	3817	1/1	0.64	0.12	139,139,139,139	0
56	MG	1a	1894	1/1	0.64	0.23	132,132,132,132	0
56	MG	2A	3505	1/1	0.64	0.14	129,129,129,129	0
56	MG	1a	1680	1/1	0.64	0.17	155,155,155,155	0
56	MG	2A	3269	1/1	0.64	0.30	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3521	1/1	0.64	0.21	105,105,105,105	0
56	MG	2A	3283	1/1	0.64	0.32	108,108,108,108	0
56	MG	2A	3641	1/1	0.64	0.17	127,127,127,127	0
56	MG	2a	1724	1/1	0.64	0.17	141,141,141,141	0
56	MG	2A	3284	1/1	0.64	0.31	97,97,97,97	0
56	MG	1B	215	1/1	0.64	0.27	65,65,65,65	0
56	MG	1A	4525	1/1	0.64	0.16	104,104,104,104	0
56	MG	1a	1808	1/1	0.64	0.20	122,122,122,122	0
56	MG	1A	4776	1/1	0.64	0.16	96,96,96,96	0
56	MG	2a	1871	1/1	0.64	0.29	134,134,134,134	0
56	MG	1g	301	1/1	0.64	0.24	186,186,186,186	0
56	MG	2F	302	1/1	0.65	0.20	90,90,90,90	0
56	MG	2A	3739	1/1	0.65	0.32	103,103,103,103	0
56	MG	2T	302	1/1	0.65	0.32	124,124,124,124	0
56	MG	2A	3030	1/1	0.65	0.32	97,97,97,97	0
56	MG	2A	3138	1/1	0.65	0.17	118,118,118,118	0
56	MG	2A	3566	1/1	0.65	0.15	114,114,114,114	0
56	MG	2A	3099	1/1	0.65	0.09	152,152,152,152	0
56	MG	2a	1733	1/1	0.65	0.12	125,125,125,125	0
56	MG	1a	1653	1/1	0.65	0.25	119,119,119,119	0
56	MG	1A	5056	1/1	0.65	0.13	137,137,137,137	0
56	MG	2A	3015	1/1	0.65	0.25	112,112,112,112	0
56	MG	1a	1865	1/1	0.65	0.09	224,224,224,224	0
56	MG	2A	3184	1/1	0.65	0.19	135,135,135,135	0
56	MG	2a	1603	1/1	0.65	0.16	151,151,151,151	0
56	MG	1a	1798	1/1	0.65	0.22	118,118,118,118	0
56	MG	2A	3512	1/1	0.65	0.25	94,94,94,94	0
56	MG	2A	3386	1/1	0.65	0.11	125,125,125,125	0
56	MG	2A	3083	1/1	0.65	0.31	115,115,115,115	0
56	MG	1A	4259	1/1	0.65	0.23	61,61,61,61	0
56	MG	2A	3523	1/1	0.65	0.20	100,100,100,100	0
56	MG	1a	1601	1/1	0.65	0.26	73,73,73,73	0
56	MG	2A	3432	1/1	0.65	0.37	93,93,93,93	0
56	MG	1a	1825	1/1	0.65	0.17	214,214,214,214	0
56	MG	2A	3532	1/1	0.65	0.17	118,118,118,118	0
56	MG	2B	225	1/1	0.65	0.13	132,132,132,132	0
56	MG	1A	4040	1/1	0.65	0.14	93,93,93,93	0
56	MG	2A	3443	1/1	0.65	0.24	111,111,111,111	0
56	MG	2A	3285	1/1	0.65	0.33	101,101,101,101	0
56	MG	2a	1892	1/1	0.65	0.22	142,142,142,142	0
56	MG	2a	1672	1/1	0.65	0.15	181,181,181,181	0
56	MG	2A	3027	1/1	0.65	0.13	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1896	1/1	0.65	0.35	114,114,114,114	0
56	MG	1a	1690	1/1	0.66	0.15	124,124,124,124	0
56	MG	1A	5024	1/1	0.66	0.34	55,55,55,55	0
56	MG	2A	3793	1/1	0.66	0.16	116,116,116,116	0
56	MG	2A	3795	1/1	0.66	0.10	109,109,109,109	0
56	MG	2A	3319	1/1	0.66	0.23	87,87,87,87	0
56	MG	2T	301	1/1	0.66	0.18	124,124,124,124	0
56	MG	2A	3419	1/1	0.66	0.19	135,135,135,135	0
56	MG	2A	3102	1/1	0.66	0.20	144,144,144,144	0
56	MG	1a	1774	1/1	0.66	0.11	139,139,139,139	0
56	MG	2A	3395	1/1	0.66	0.30	128,128,128,128	0
56	MG	1D	307	1/1	0.66	0.27	99,99,99,99	0
56	MG	1A	4863	1/1	0.66	0.23	62,62,62,62	0
56	MG	1a	1629	1/1	0.66	0.23	101,101,101,101	0
56	MG	1a	1660	1/1	0.66	0.30	119,119,119,119	0
56	MG	2A	3161	1/1	0.66	0.37	100,100,100,100	0
56	MG	2A	3442	1/1	0.66	0.21	108,108,108,108	0
56	MG	1a	1862	1/1	0.66	0.17	215,215,215,215	0
56	MG	1v	701	1/1	0.66	0.43	117,117,117,117	0
56	MG	2A	3066	1/1	0.66	0.20	125,125,125,125	0
56	MG	2A	3526	1/1	0.66	0.16	106,106,106,106	0
56	MG	2s	103	1/1	0.66	0.39	251,251,251,251	0
56	MG	2a	1641	1/1	0.66	0.19	146,146,146,146	0
56	MG	2A	3758	1/1	0.67	0.11	211,211,211,211	0
56	MG	2A	3149	1/1	0.67	0.25	110,110,110,110	0
56	MG	1A	4022	1/1	0.67	0.26	111,111,111,111	0
56	MG	2a	1883	1/1	0.67	0.32	131,131,131,131	0
56	MG	1A	4809	1/1	0.67	0.17	58,58,58,58	0
56	MG	2A	3270	1/1	0.67	0.17	98,98,98,98	0
56	MG	2a	1886	1/1	0.67	0.18	147,147,147,147	0
56	MG	2a	1757	1/1	0.67	0.31	211,211,211,211	0
56	MG	2A	3528	1/1	0.67	0.18	106,106,106,106	0
56	MG	2A	3736	1/1	0.67	0.23	108,108,108,108	0
56	MG	1a	1917	1/1	0.67	0.09	128,128,128,128	0
56	MG	2A	3100	1/1	0.67	0.16	152,152,152,152	0
56	MG	2A	3031	1/1	0.67	0.27	103,103,103,103	0
56	MG	2A	3534	1/1	0.68	0.26	133,133,133,133	0
56	MG	2A	3095	1/1	0.68	0.44	106,106,106,106	0
56	MG	2A	3152	1/1	0.68	0.13	96,96,96,96	0
56	MG	2A	3363	1/1	0.68	0.56	85,85,85,85	0
56	MG	1a	1867	1/1	0.68	0.10	227,227,227,227	0
56	MG	2A	3211	1/1	0.68	0.39	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1627	1/1	0.68	0.22	95,95,95,95	0
56	MG	2a	1901	1/1	0.68	0.10	171,171,171,171	0
56	MG	2a	1856	1/1	0.68	0.23	147,147,147,147	0
56	MG	2a	1860	1/1	0.68	0.18	153,153,153,153	0
56	MG	2A	3740	1/1	0.68	0.23	88,88,88,88	0
56	MG	1A	4506	1/1	0.68	0.34	96,96,96,96	0
56	MG	2A	3230	1/1	0.68	0.25	87,87,87,87	0
56	MG	2A	3658	1/1	0.68	0.28	112,112,112,112	0
56	MG	2A	3659	1/1	0.68	0.21	149,149,149,149	0
56	MG	1A	4036	1/1	0.68	0.41	76,76,76,76	0
56	MG	1A	4012	1/1	0.68	0.35	71,71,71,71	0
56	MG	1B	211	1/1	0.68	0.22	82,82,82,82	0
56	MG	28	105	1/1	0.68	0.18	119,119,119,119	0
56	MG	1A	4048	1/1	0.68	0.30	103,103,103,103	0
56	MG	1a	1646	1/1	0.68	0.29	116,116,116,116	0
56	MG	2a	1632	1/1	0.68	0.18	137,137,137,137	0
56	MG	1a	1728	1/1	0.68	0.15	143,143,143,143	0
56	MG	1a	1742	1/1	0.68	0.34	106,106,106,106	0
56	MG	1A	4733	1/1	0.69	0.18	82,82,82,82	0
56	MG	2A	3178	1/1	0.69	0.29	116,116,116,116	0
56	MG	1A	4970	1/1	0.69	0.16	89,89,89,89	0
56	MG	2A	3647	1/1	0.69	0.23	108,108,108,108	0
56	MG	2o	301	1/1	0.69	0.12	118,118,118,118	0
56	MG	2A	3743	1/1	0.69	0.25	83,83,83,83	0
56	MG	2A	3751	1/1	0.69	0.28	101,101,101,101	0
56	MG	2A	3752	1/1	0.69	0.18	117,117,117,117	0
56	MG	2r	302	1/1	0.69	0.13	149,149,149,149	0
56	MG	2A	3305	1/1	0.69	0.19	128,128,128,128	0
56	MG	1a	1731	1/1	0.69	0.25	136,136,136,136	0
56	MG	2A	3577	1/1	0.69	0.24	143,143,143,143	0
56	MG	2a	1638	1/1	0.69	0.13	148,148,148,148	0
56	MG	2A	3504	1/1	0.69	0.11	134,134,134,134	0
56	MG	2A	3823	1/1	0.69	0.24	95,95,95,95	0
56	MG	1n	102	1/1	0.69	0.31	210,210,210,210	0
56	MG	2a	1870	1/1	0.69	0.21	108,108,108,108	0
56	MG	2x	102	1/1	0.69	0.14	107,107,107,107	0
56	MG	1A	4633	1/1	0.69	0.12	71,71,71,71	0
56	MG	2a	1799	1/1	0.69	0.34	238,238,238,238	0
56	MG	2A	3076	1/1	0.69	0.25	113,113,113,113	0
56	MG	2A	3333	1/1	0.69	0.25	98,98,98,98	0
56	MG	2A	3078	1/1	0.69	0.25	119,119,119,119	0
56	MG	2a	1878	1/1	0.69	0.29	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3778	1/1	0.69	0.27	97,97,97,97	0
56	MG	2a	1651	1/1	0.69	0.41	142,142,142,142	0
56	MG	2a	1727	1/1	0.69	0.15	124,124,124,124	0
56	MG	2A	3244	1/1	0.69	0.26	104,104,104,104	0
56	MG	2a	1730	1/1	0.69	0.15	127,127,127,127	0
56	MG	2A	3639	1/1	0.69	0.27	118,118,118,118	0
56	MG	2Q	201	1/1	0.69	0.17	126,126,126,126	0
56	MG	2A	3282	1/1	0.69	0.19	107,107,107,107	0
56	MG	2a	1693	1/1	0.69	0.18	141,141,141,141	0
56	MG	2a	1894	1/1	0.69	0.29	151,151,151,151	0
56	MG	2Q	206	1/1	0.69	0.16	118,118,118,118	0
56	MG	1a	1764	1/1	0.69	0.13	121,121,121,121	0
56	MG	1A	4330	1/1	0.70	0.24	77,77,77,77	0
56	MG	1A	4343	1/1	0.70	0.39	71,71,71,71	0
56	MG	2A	3393	1/1	0.70	0.16	132,132,132,132	0
56	MG	2A	3207	1/1	0.70	0.17	123,123,123,123	0
56	MG	1A	4066	1/1	0.70	0.17	98,98,98,98	0
56	MG	2A	3562	1/1	0.70	0.32	90,90,90,90	0
56	MG	2A	3563	1/1	0.70	0.35	90,90,90,90	0
56	MG	1A	4388	1/1	0.70	0.35	79,79,79,79	0
56	MG	2A	3302	1/1	0.70	0.24	100,100,100,100	0
56	MG	2q	202	1/1	0.70	0.16	149,149,149,149	0
56	MG	2A	3400	1/1	0.70	0.20	225,225,225,225	0
56	MG	2A	3214	1/1	0.70	0.36	93,93,93,93	0
56	MG	1a	1915	1/1	0.70	0.13	134,134,134,134	0
56	MG	1A	4285	1/1	0.70	0.33	62,62,62,62	0
56	MG	2t	201	1/1	0.70	0.19	159,159,159,159	0
56	MG	1a	1620	1/1	0.70	0.26	98,98,98,98	0
56	MG	20	105	1/1	0.70	0.18	126,126,126,126	0
56	MG	23	102	1/1	0.70	0.19	124,124,124,124	0
56	MG	1a	1623	1/1	0.70	0.24	100,100,100,100	0
56	MG	1A	4226	1/1	0.70	0.21	81,81,81,81	0
56	MG	2a	1692	1/1	0.70	0.18	149,149,149,149	0
56	MG	2A	3106	1/1	0.70	0.12	170,170,170,170	0
56	MG	1a	1699	1/1	0.70	0.23	118,118,118,118	0
56	MG	2A	3417	1/1	0.70	0.17	117,117,117,117	0
56	MG	2a	1652	1/1	0.70	0.19	142,142,142,142	0
56	MG	1a	1704	1/1	0.70	0.14	125,125,125,125	0
56	MG	1A	4256	1/1	0.70	0.39	65,65,65,65	0
56	MG	2A	3789	1/1	0.70	0.06	97,97,97,97	0
56	MG	1a	1830	1/1	0.70	0.12	194,194,194,194	0
56	MG	1B	212	1/1	0.70	0.22	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3188	1/1	0.70	0.26	103,103,103,103	0
56	MG	2h	203	1/1	0.70	0.14	144,144,144,144	0
56	MG	1a	1858	1/1	0.70	0.12	210,210,210,210	0
56	MG	2A	3115	1/1	0.70	0.13	135,135,135,135	0
56	MG	1A	4959	1/1	0.70	0.16	102,102,102,102	0
56	MG	1B	223	1/1	0.70	0.22	97,97,97,97	0
56	MG	2B	228	1/1	0.70	0.14	145,145,145,145	0
56	MG	2l	203	1/1	0.70	0.28	129,129,129,129	0
56	MG	2A	3281	1/1	0.70	0.37	104,104,104,104	0
56	MG	1a	1657	1/1	0.71	0.17	106,106,106,106	0
56	MG	2A	3690	1/1	0.71	0.14	159,159,159,159	0
56	MG	1A	4485	1/1	0.71	0.27	61,61,61,61	0
56	MG	2A	3699	1/1	0.71	0.27	107,107,107,107	0
56	MG	2a	1867	1/1	0.71	0.15	79,79,79,79	0
56	MG	2A	3716	1/1	0.71	0.22	116,116,116,116	0
56	MG	2A	3587	1/1	0.71	0.30	123,123,123,123	0
56	MG	2A	3635	1/1	0.71	0.31	103,103,103,103	0
56	MG	2A	3732	1/1	0.71	0.28	95,95,95,95	0
56	MG	2a	1634	1/1	0.71	0.22	120,120,120,120	0
56	MG	23	101	1/1	0.71	0.18	104,104,104,104	0
56	MG	2A	3287	1/1	0.71	0.52	104,104,104,104	0
56	MG	1a	1649	1/1	0.71	0.44	105,105,105,105	0
56	MG	2A	3298	1/1	0.71	0.27	94,94,94,94	0
56	MG	2A	3802	1/1	0.71	0.33	108,108,108,108	0
56	MG	2A	3181	1/1	0.71	0.20	114,114,114,114	0
56	MG	2a	1808	1/1	0.71	0.17	102,102,102,102	0
56	MG	2A	3595	1/1	0.71	0.13	147,147,147,147	0
56	MG	2a	1645	1/1	0.71	0.22	124,124,124,124	0
56	MG	1A	4198	1/1	0.71	0.18	98,98,98,98	0
56	MG	2A	3215	1/1	0.71	0.26	100,100,100,100	0
56	MG	1A	5022	1/1	0.71	0.14	122,122,122,122	0
56	MG	1a	1853	1/1	0.71	0.17	225,225,225,225	0
56	MG	2A	3660	1/1	0.71	0.12	147,147,147,147	0
56	MG	2a	1690	1/1	0.71	0.29	155,155,155,155	0
56	MG	1a	1810	1/1	0.71	0.17	100,100,100,100	0
56	MG	2A	3392	1/1	0.71	0.19	124,124,124,124	0
56	MG	2A	3235	1/1	0.71	0.57	97,97,97,97	0
56	MG	2E	302	1/1	0.71	0.23	96,96,96,96	0
56	MG	1A	4292	1/1	0.71	0.18	96,96,96,96	0
56	MG	1a	1800	1/1	0.71	0.26	119,119,119,119	0
56	MG	2A	3493	1/1	0.71	0.12	134,134,134,134	0
56	MG	1a	1778	1/1	0.71	0.18	126,126,126,126	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3339	1/1	0.72	0.35	72,72,72,72	0
56	MG	1A	4622	1/1	0.72	0.19	115,115,115,115	0
56	MG	1A	4228	1/1	0.72	0.27	109,109,109,109	0
56	MG	2A	3255	1/1	0.72	0.20	126,126,126,126	0
56	MG	2A	3677	1/1	0.72	0.27	115,115,115,115	0
56	MG	2A	3482	1/1	0.72	0.18	117,117,117,117	0
56	MG	2A	3073	1/1	0.72	0.32	127,127,127,127	0
56	MG	1A	4889	1/1	0.72	0.10	61,61,61,61	0
56	MG	1A	4404	1/1	0.72	0.14	70,70,70,70	0
56	MG	1a	1874	1/1	0.72	0.12	196,196,196,196	0
56	MG	2A	3164	1/1	0.72	0.28	97,97,97,97	0
56	MG	2A	3697	1/1	0.72	0.23	128,128,128,128	0
56	MG	2A	3567	1/1	0.72	0.21	104,104,104,104	0
56	MG	2a	1866	1/1	0.72	0.32	138,138,138,138	0
56	MG	2A	3420	1/1	0.72	0.14	121,121,121,121	0
56	MG	1a	1610	1/1	0.72	0.25	90,90,90,90	0
56	MG	1B	205	1/1	0.72	0.23	87,87,87,87	0
56	MG	2A	3086	1/1	0.72	0.28	119,119,119,119	0
56	MG	2A	3626	1/1	0.72	0.12	158,158,158,158	0
56	MG	2A	3025	1/1	0.72	0.39	118,118,118,118	0
56	MG	1a	1836	1/1	0.72	0.09	225,225,225,225	0
56	MG	1A	4426	1/1	0.72	0.19	77,77,77,77	0
56	MG	2a	1876	1/1	0.72	0.35	147,147,147,147	0
56	MG	2A	3185	1/1	0.72	0.42	95,95,95,95	0
56	MG	2A	3579	1/1	0.72	0.18	115,115,115,115	0
56	MG	2A	3582	1/1	0.72	0.16	106,106,106,106	0
56	MG	1A	4095	1/1	0.72	0.22	62,62,62,62	0
56	MG	2A	3584	1/1	0.72	0.15	114,114,114,114	0
56	MG	2A	3850	1/1	0.72	0.31	109,109,109,109	0
56	MG	2A	3197	1/1	0.72	0.17	93,93,93,93	0
56	MG	1A	4304	1/1	0.72	0.31	81,81,81,81	0
56	MG	2A	3761	1/1	0.72	0.27	126,126,126,126	0
56	MG	1B	214	1/1	0.72	0.23	69,69,69,69	0
56	MG	1A	4305	1/1	0.72	0.28	82,82,82,82	0
56	MG	1A	4011	1/1	0.72	0.17	70,70,70,70	0
56	MG	2a	1896	1/1	0.72	0.08	98,98,98,98	0
56	MG	2a	1837	1/1	0.72	0.11	240,240,240,240	0
56	MG	1a	1767	1/1	0.73	0.10	133,133,133,133	0
56	MG	1A	4458	1/1	0.73	0.31	60,60,60,60	0
56	MG	1A	4034	1/1	0.73	0.26	69,69,69,69	0
56	MG	2A	3433	1/1	0.73	0.33	92,92,92,92	0
56	MG	1a	1672	1/1	0.73	0.10	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1702	1/1	0.73	0.10	181,181,181,181	0
56	MG	1A	4926	1/1	0.73	0.15	76,76,76,76	0
56	MG	2A	3239	1/1	0.73	0.35	108,108,108,108	0
56	MG	29	101	1/1	0.73	0.34	130,130,130,130	0
56	MG	2A	3721	1/1	0.73	0.10	118,118,118,118	0
56	MG	1A	4101	1/1	0.73	0.38	45,45,45,45	0
56	MG	1A	4317	1/1	0.73	0.23	106,106,106,106	0
56	MG	2a	1787	1/1	0.73	0.16	231,231,231,231	0
56	MG	1A	4490	1/1	0.73	0.16	89,89,89,89	0
56	MG	1a	1875	1/1	0.73	0.26	118,118,118,118	0
56	MG	1A	4014	1/1	0.73	0.21	87,87,87,87	0
56	MG	2A	3645	1/1	0.73	0.17	116,116,116,116	0
56	MG	2A	3744	1/1	0.73	0.14	105,105,105,105	0
56	MG	2A	3747	1/1	0.73	0.13	107,107,107,107	0
56	MG	1a	1714	1/1	0.73	0.22	118,118,118,118	0
56	MG	2A	3821	1/1	0.73	0.25	89,89,89,89	0
56	MG	1a	1748	1/1	0.73	0.12	145,145,145,145	0
56	MG	1A	4592	1/1	0.73	0.11	90,90,90,90	0
56	MG	2a	1802	1/1	0.73	0.16	166,166,166,166	0
56	MG	2A	3830	1/1	0.73	0.32	125,125,125,125	0
56	MG	1a	1795	1/1	0.73	0.23	107,107,107,107	0
56	MG	2F	303	1/1	0.73	0.22	126,126,126,126	0
56	MG	1A	5015	1/1	0.73	0.13	89,89,89,89	0
56	MG	2A	3204	1/1	0.73	0.31	111,111,111,111	0
56	MG	2A	3137	1/1	0.73	0.19	134,134,134,134	0
56	MG	1A	4832	1/1	0.73	0.16	71,71,71,71	0
56	MG	1a	1661	1/1	0.73	0.29	117,117,117,117	0
56	MG	2a	1717	1/1	0.73	0.16	143,143,143,143	0
56	MG	1A	4021	1/1	0.73	0.25	76,76,76,76	0
56	MG	2A	3210	1/1	0.73	0.40	93,93,93,93	0
56	MG	1A	4507	1/1	0.73	0.20	106,106,106,106	0
56	MG	2a	1635	1/1	0.73	0.14	147,147,147,147	0
56	MG	2A	3750	1/1	0.74	0.34	104,104,104,104	0
56	MG	2A	3372	1/1	0.74	0.33	107,107,107,107	0
56	MG	2A	3418	1/1	0.74	0.18	117,117,117,117	0
56	MG	2A	3753	1/1	0.74	0.15	97,97,97,97	0
56	MG	2A	3202	1/1	0.74	0.21	114,114,114,114	0
56	MG	1a	1736	1/1	0.74	0.14	145,145,145,145	0
56	MG	2a	1843	1/1	0.74	0.18	253,253,253,253	0
56	MG	2a	1736	1/1	0.74	0.18	137,137,137,137	0
56	MG	1A	4452	1/1	0.74	0.36	64,64,64,64	0
56	MG	1a	1717	1/1	0.74	0.26	110,110,110,110	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4700	1/1	0.74	0.23	79,79,79,79	0
56	MG	1A	4278	1/1	0.74	0.20	65,65,65,65	0
56	MG	1a	1779	1/1	0.74	0.20	122,122,122,122	0
56	MG	2a	1911	1/1	0.74	0.14	140,140,140,140	0
56	MG	2A	3684	1/1	0.74	0.27	94,94,94,94	0
56	MG	2A	3520	1/1	0.74	0.28	91,91,91,91	0
56	MG	1A	4757	1/1	0.74	0.14	119,119,119,119	0
56	MG	2A	3060	1/1	0.74	0.30	85,85,85,85	0
56	MG	2a	1748	1/1	0.74	0.27	114,114,114,114	0
56	MG	1A	4070	1/1	0.74	0.20	67,67,67,67	0
56	MG	2a	1751	1/1	0.74	0.22	116,116,116,116	0
56	MG	2v	703	1/1	0.74	0.15	154,154,154,154	0
56	MG	1A	4403	1/1	0.74	0.13	62,62,62,62	0
56	MG	2A	3219	1/1	0.74	0.30	110,110,110,110	0
56	MG	2A	3346	1/1	0.74	0.41	102,102,102,102	0
56	MG	2A	3347	1/1	0.74	0.18	99,99,99,99	0
56	MG	2A	3068	1/1	0.74	0.18	148,148,148,148	0
56	MG	1A	4291	1/1	0.74	0.24	71,71,71,71	0
56	MG	2A	3361	1/1	0.74	0.28	94,94,94,94	0
56	MG	1a	1786	1/1	0.74	0.22	119,119,119,119	0
56	MG	2A	3021	1/1	0.74	0.22	112,112,112,112	0
56	MG	1a	1919	1/1	0.74	0.15	144,144,144,144	0
56	MG	2A	3646	1/1	0.74	0.20	110,110,110,110	0
56	MG	1A	4112	1/1	0.74	0.14	59,59,59,59	0
56	MG	2A	3648	1/1	0.74	0.11	137,137,137,137	0
56	MG	2i	202	1/1	0.74	0.12	255,255,255,255	0
56	MG	2i	203	1/1	0.74	0.16	234,234,234,234	0
56	MG	2a	1726	1/1	0.74	0.19	108,108,108,108	0
56	MG	2a	1605	1/1	0.74	0.21	127,127,127,127	0
56	MG	2A	3370	1/1	0.74	0.30	99,99,99,99	0
56	MG	2a	1833	1/1	0.74	0.17	161,161,161,161	0
56	MG	1A	4624	1/1	0.75	0.21	118,118,118,118	0
56	MG	2A	3402	1/1	0.75	0.16	112,112,112,112	0
56	MG	2a	1623	1/1	0.75	0.10	182,182,182,182	0
56	MG	2A	3541	1/1	0.75	0.24	123,123,123,123	0
56	MG	2A	3056	1/1	0.75	0.14	107,107,107,107	0
56	MG	1A	4288	1/1	0.75	0.20	74,74,74,74	0
56	MG	2A	3558	1/1	0.75	0.21	93,93,93,93	0
56	MG	2A	3354	1/1	0.75	0.39	79,79,79,79	0
56	MG	2a	1919	1/1	0.75	0.10	155,155,155,155	0
56	MG	1a	1848	1/1	0.75	0.17	178,178,178,178	0
56	MG	2A	3773	1/1	0.75	0.29	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3062	1/1	0.75	0.12	85,85,85,85	0
56	MG	2A	3279	1/1	0.75	0.46	80,80,80,80	0
56	MG	1a	1664	1/1	0.75	0.15	115,115,115,115	0
56	MG	1a	1666	1/1	0.75	0.30	116,116,116,116	0
56	MG	1a	1719	1/1	0.75	0.17	102,102,102,102	0
56	MG	1A	4372	1/1	0.75	0.30	57,57,57,57	0
56	MG	2A	3627	1/1	0.75	0.17	165,165,165,165	0
56	MG	1O	201	1/1	0.75	0.20	82,82,82,82	0
56	MG	2A	3383	1/1	0.75	0.28	100,100,100,100	0
56	MG	1a	1807	1/1	0.75	0.12	100,100,100,100	0
56	MG	1A	4383	1/1	0.75	0.38	65,65,65,65	0
56	MG	1A	4554	1/1	0.75	0.27	79,79,79,79	0
56	MG	1a	1751	1/1	0.75	0.18	131,131,131,131	0
56	MG	1A	4300	1/1	0.75	0.22	90,90,90,90	0
56	MG	1B	208	1/1	0.75	0.17	94,94,94,94	0
56	MG	1A	4884	1/1	0.75	0.14	84,84,84,84	0
56	MG	2A	3327	1/1	0.75	0.43	91,91,91,91	0
56	MG	1o	101	1/1	0.75	0.23	113,113,113,113	0
56	MG	2A	3091	1/1	0.75	0.31	112,112,112,112	0
56	MG	1a	1760	1/1	0.75	0.21	114,114,114,114	0
56	MG	2A	3451	1/1	0.75	0.32	99,99,99,99	0
56	MG	2a	1616	1/1	0.75	0.18	139,139,139,139	0
56	MG	1A	4051	1/1	0.75	0.21	100,100,100,100	0
56	MG	1A	5012	1/1	0.75	0.10	115,115,115,115	0
56	MG	2a	1907	1/1	0.75	0.08	256,256,256,256	0
56	MG	1A	4171	1/1	0.76	0.36	49,49,49,49	0
56	MG	1A	5005	1/1	0.76	0.11	86,86,86,86	0
56	MG	1A	4443	1/1	0.76	0.34	75,75,75,75	0
56	MG	1a	1635	1/1	0.76	0.23	121,121,121,121	0
56	MG	2A	3487	1/1	0.76	0.08	145,145,145,145	0
56	MG	2a	1793	1/1	0.76	0.09	251,251,251,251	0
56	MG	2A	3155	1/1	0.76	0.07	100,100,100,100	0
56	MG	1A	4820	1/1	0.76	0.15	72,72,72,72	0
56	MG	2a	1882	1/1	0.76	0.12	163,163,163,163	0
56	MG	2A	3236	1/1	0.76	0.57	96,96,96,96	0
56	MG	1A	4449	1/1	0.76	0.12	79,79,79,79	0
56	MG	1A	4301	1/1	0.76	0.22	102,102,102,102	0
56	MG	1B	216	1/1	0.76	0.43	69,69,69,69	0
56	MG	2A	3508	1/1	0.76	0.27	97,97,97,97	0
56	MG	1A	4378	1/1	0.76	0.25	83,83,83,83	0
56	MG	2A	3349	1/1	0.76	0.24	104,104,104,104	0
56	MG	2A	3674	1/1	0.76	0.13	145,145,145,145	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1d	305	1/1	0.76	0.14	142,142,142,142	0
56	MG	1A	4538	1/1	0.76	0.11	83,83,83,83	0
56	MG	2A	3355	1/1	0.76	0.46	89,89,89,89	0
56	MG	2A	3522	1/1	0.76	0.27	98,98,98,98	0
56	MG	2O	301	1/1	0.76	0.17	136,136,136,136	0
56	MG	1A	4540	1/1	0.76	0.15	77,77,77,77	0
56	MG	1a	1715	1/1	0.76	0.24	123,123,123,123	0
56	MG	1A	4742	1/1	0.76	0.24	73,73,73,73	0
56	MG	1Y	301	1/1	0.76	0.14	85,85,85,85	0
56	MG	2A	3195	1/1	0.76	0.36	90,90,90,90	0
56	MG	1a	1723	1/1	0.76	0.31	118,118,118,118	0
56	MG	2A	3599	1/1	0.76	0.21	122,122,122,122	0
56	MG	2A	3604	1/1	0.76	0.20	110,110,110,110	0
56	MG	1a	1724	1/1	0.76	0.13	126,126,126,126	0
56	MG	1a	1725	1/1	0.76	0.20	117,117,117,117	0
56	MG	1A	4746	1/1	0.76	0.21	76,76,76,76	0
56	MG	2A	3535	1/1	0.76	0.10	141,141,141,141	0
56	MG	1a	1729	1/1	0.76	0.38	143,143,143,143	0
56	MG	2A	3614	1/1	0.76	0.21	102,102,102,102	0
56	MG	1A	4747	1/1	0.76	0.16	84,84,84,84	0
56	MG	1A	4546	1/1	0.76	0.14	104,104,104,104	0
56	MG	1a	1770	1/1	0.76	0.08	101,101,101,101	0
56	MG	2A	3545	1/1	0.76	0.31	97,97,97,97	0
56	MG	2a	1858	1/1	0.76	0.24	149,149,149,149	0
56	MG	2e	201	1/1	0.76	0.26	122,122,122,122	0
56	MG	2A	3548	1/1	0.76	0.16	104,104,104,104	0
56	MG	1A	4096	1/1	0.76	0.25	55,55,55,55	0
56	MG	2f	302	1/1	0.76	0.13	143,143,143,143	0
56	MG	2A	3127	1/1	0.76	0.17	135,135,135,135	0
56	MG	1A	4932	1/1	0.76	0.07	153,153,153,153	0
56	MG	2A	3005	1/1	0.76	0.24	102,102,102,102	0
56	MG	2A	3632	1/1	0.76	0.38	110,110,110,110	0
56	MG	1A	4779	1/1	0.76	0.18	68,68,68,68	0
56	MG	1A	4514	1/1	0.76	0.31	81,81,81,81	0
56	MG	2A	3364	1/1	0.77	0.40	84,84,84,84	0
56	MG	2A	3292	1/1	0.77	0.36	79,79,79,79	0
56	MG	1a	1630	1/1	0.77	0.25	108,108,108,108	0
56	MG	2A	3300	1/1	0.77	0.31	96,96,96,96	0
56	MG	2A	3154	1/1	0.77	0.19	92,92,92,92	0
56	MG	1A	4164	1/1	0.77	0.25	58,58,58,58	0
56	MG	2A	3794	1/1	0.77	0.14	113,113,113,113	0
56	MG	2a	1685	1/1	0.77	0.13	167,167,167,167	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3381	1/1	0.77	0.27	98,98,98,98	0
56	MG	2A	3307	1/1	0.77	0.12	92,92,92,92	0
56	MG	1A	4464	1/1	0.77	0.31	66,66,66,66	0
56	MG	1A	4013	1/1	0.77	0.13	81,81,81,81	0
56	MG	2A	3326	1/1	0.77	0.29	85,85,85,85	0
56	MG	1a	1866	1/1	0.77	0.12	224,224,224,224	0
56	MG	1A	4441	1/1	0.77	0.30	78,78,78,78	0
56	MG	2A	3426	1/1	0.77	0.38	93,93,93,93	0
56	MG	1A	4311	1/1	0.77	0.18	101,101,101,101	0
56	MG	1A	4948	1/1	0.77	0.11	62,62,62,62	0
56	MG	1A	4780	1/1	0.77	0.18	76,76,76,76	0
56	MG	2a	1920	1/1	0.77	0.14	222,222,222,222	0
56	MG	1A	4172	1/1	0.77	0.32	58,58,58,58	0
56	MG	2a	1613	1/1	0.77	0.31	147,147,147,147	0
56	MG	2A	3826	1/1	0.77	0.35	114,114,114,114	0
56	MG	2A	3183	1/1	0.77	0.21	124,124,124,124	0
56	MG	1a	1881	1/1	0.77	0.08	151,151,151,151	0
56	MG	1A	4080	1/1	0.77	0.30	55,55,55,55	0
56	MG	2a	1618	1/1	0.77	0.16	145,145,145,145	0
56	MG	2A	3135	1/1	0.77	0.30	105,105,105,105	0
56	MG	2a	1710	1/1	0.77	0.35	131,131,131,131	0
56	MG	2A	3835	1/1	0.77	0.32	121,121,121,121	0
56	MG	1a	1642	1/1	0.77	0.18	112,112,112,112	0
56	MG	2a	1881	1/1	0.77	0.13	171,171,171,171	0
56	MG	1a	1801	1/1	0.77	0.13	105,105,105,105	0
56	MG	2Q	203	1/1	0.77	0.10	107,107,107,107	0
56	MG	2a	1813	1/1	0.77	0.12	143,143,143,143	0
56	MG	2A	3849	1/1	0.77	0.14	153,153,153,153	0
56	MG	1a	1755	1/1	0.77	0.19	100,100,100,100	0
56	MG	2A	3470	1/1	0.77	0.29	104,104,104,104	0
56	MG	2A	3143	1/1	0.77	0.17	89,89,89,89	0
56	MG	2a	1826	1/1	0.77	0.18	162,162,162,162	0
56	MG	2A	3781	1/1	0.77	0.30	80,80,80,80	0
56	MG	2k	201	1/1	0.77	0.10	158,158,158,158	0
56	MG	1a	1694	1/1	0.77	0.18	125,125,125,125	0
56	MG	2A	3445	1/1	0.78	0.19	86,86,86,86	0
56	MG	1a	1898	1/1	0.78	0.21	108,108,108,108	0
56	MG	2A	3725	1/1	0.78	0.28	79,79,79,79	0
56	MG	2A	3460	1/1	0.78	0.35	106,106,106,106	0
56	MG	1A	4058	1/1	0.78	0.26	67,67,67,67	0
56	MG	2A	3546	1/1	0.78	0.32	97,97,97,97	0
56	MG	2A	3834	1/1	0.78	0.30	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1769	1/1	0.78	0.09	131,131,131,131	0
56	MG	2A	3550	1/1	0.78	0.21	104,104,104,104	0
56	MG	1A	4804	1/1	0.78	0.20	89,89,89,89	0
56	MG	1A	4547	1/1	0.78	0.15	129,129,129,129	0
56	MG	2A	3232	1/1	0.78	0.60	95,95,95,95	0
56	MG	2A	3032	1/1	0.78	0.15	108,108,108,108	0
56	MG	2a	1795	1/1	0.78	0.09	111,111,111,111	0
56	MG	2A	3101	1/1	0.78	0.10	133,133,133,133	0
56	MG	1a	1663	1/1	0.78	0.26	115,115,115,115	0
56	MG	2A	3044	1/1	0.78	0.27	107,107,107,107	0
56	MG	1a	1908	1/1	0.78	0.21	131,131,131,131	0
56	MG	1A	4722	1/1	0.78	0.15	75,75,75,75	0
56	MG	2A	3059	1/1	0.78	0.19	88,88,88,88	0
56	MG	2a	1890	1/1	0.78	0.17	125,125,125,125	0
56	MG	2A	3492	1/1	0.78	0.08	120,120,120,120	0
56	MG	1A	4213	1/1	0.78	0.27	57,57,57,57	0
56	MG	1A	4077	1/1	0.78	0.37	78,78,78,78	0
56	MG	1y	101	1/1	0.78	0.24	87,87,87,87	0
56	MG	2A	3249	1/1	0.78	0.18	128,128,128,128	0
56	MG	1a	1913	1/1	0.78	0.29	97,97,97,97	0
56	MG	2A	3350	1/1	0.78	0.36	104,104,104,104	0
56	MG	2a	1682	1/1	0.78	0.18	131,131,131,131	0
56	MG	1A	4966	1/1	0.78	0.13	83,83,83,83	0
56	MG	2A	3775	1/1	0.78	0.13	114,114,114,114	0
56	MG	2A	3069	1/1	0.78	0.20	149,149,149,149	0
56	MG	1a	1692	1/1	0.78	0.18	129,129,129,129	0
56	MG	2A	3665	1/1	0.78	0.17	129,129,129,129	0
56	MG	1B	224	1/1	0.78	0.24	83,83,83,83	0
56	MG	2A	3256	1/1	0.78	0.21	92,92,92,92	0
56	MG	2A	3266	1/1	0.78	0.18	86,86,86,86	0
56	MG	1a	1697	1/1	0.78	0.17	142,142,142,142	0
56	MG	1A	4069	1/1	0.78	0.25	72,72,72,72	0
56	MG	1a	1673	1/1	0.78	0.16	117,117,117,117	0
56	MG	2A	3280	1/1	0.78	0.23	89,89,89,89	0
56	MG	2F	301	1/1	0.78	0.24	133,133,133,133	0
56	MG	1A	4230	1/1	0.78	0.08	102,102,102,102	0
56	MG	2A	3530	1/1	0.78	0.19	133,133,133,133	0
56	MG	1A	4088	1/1	0.78	0.18	66,66,66,66	0
56	MG	1A	4625	1/1	0.78	0.14	118,118,118,118	0
56	MG	1a	1892	1/1	0.78	0.19	117,117,117,117	0
56	MG	2a	1848	1/1	0.78	0.13	157,157,157,157	0
56	MG	2A	3695	1/1	0.78	0.14	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4374	1/1	0.78	0.18	94,94,94,94	0
56	MG	2A	3812	1/1	0.78	0.18	144,144,144,144	0
56	MG	1a	1799	1/1	0.78	0.23	113,113,113,113	0
56	MG	1A	4677	1/1	0.78	0.20	102,102,102,102	0
56	MG	2A	3717	1/1	0.78	0.34	108,108,108,108	0
56	MG	2A	3537	1/1	0.78	0.14	73,73,73,73	0
56	MG	1A	4308	1/1	0.79	0.15	98,98,98,98	0
56	MG	2A	3469	1/1	0.79	0.08	115,115,115,115	0
56	MG	1y	104	1/1	0.79	0.12	99,99,99,99	0
56	MG	2A	3693	1/1	0.79	0.07	86,86,86,86	0
56	MG	1A	4327	1/1	0.79	0.26	66,66,66,66	0
56	MG	1A	4796	1/1	0.79	0.18	100,100,100,100	0
56	MG	1A	4798	1/1	0.79	0.20	62,62,62,62	0
56	MG	2A	3478	1/1	0.79	0.13	127,127,127,127	0
56	MG	2A	3006	1/1	0.79	0.22	101,101,101,101	0
56	MG	2A	3623	1/1	0.79	0.10	147,147,147,147	0
56	MG	2A	3556	1/1	0.79	0.19	96,96,96,96	0
56	MG	1A	4726	1/1	0.79	0.16	79,79,79,79	0
56	MG	2a	1806	1/1	0.79	0.26	116,116,116,116	0
56	MG	2N	201	1/1	0.79	0.13	113,113,113,113	0
56	MG	2A	3009	1/1	0.79	0.22	94,94,94,94	0
56	MG	1A	4505	1/1	0.79	0.29	92,92,92,92	0
56	MG	2A	3121	1/1	0.79	0.20	125,125,125,125	0
56	MG	1A	4193	1/1	0.79	0.29	64,64,64,64	0
56	MG	2A	3348	1/1	0.79	0.29	90,90,90,90	0
56	MG	1a	1883	1/1	0.79	0.17	124,124,124,124	0
56	MG	2A	3254	1/1	0.79	0.20	122,122,122,122	0
56	MG	1A	4466	1/1	0.79	0.37	56,56,56,56	0
56	MG	2a	1827	1/1	0.79	0.13	122,122,122,122	0
56	MG	1b	309	1/1	0.79	0.12	171,171,171,171	0
56	MG	1A	4826	1/1	0.79	0.11	91,91,91,91	0
56	MG	1A	4830	1/1	0.79	0.16	76,76,76,76	0
56	MG	20	101	1/1	0.79	0.38	128,128,128,128	0
56	MG	2A	3136	1/1	0.79	0.40	110,110,110,110	0
56	MG	1A	4163	1/1	0.79	0.26	57,57,57,57	0
56	MG	2A	3842	1/1	0.79	0.14	99,99,99,99	0
56	MG	1A	4756	1/1	0.79	0.21	106,106,106,106	0
56	MG	1a	1759	1/1	0.79	0.26	104,104,104,104	0
56	MG	28	101	1/1	0.79	0.67	109,109,109,109	0
56	MG	1A	4642	1/1	0.79	0.10	67,67,67,67	0
56	MG	1a	1761	1/1	0.79	0.18	112,112,112,112	0
56	MG	1a	1622	1/1	0.79	0.11	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4881	1/1	0.79	0.20	82,82,82,82	0
56	MG	1a	1625	1/1	0.79	0.41	80,80,80,80	0
56	MG	2A	3221	1/1	0.79	0.16	114,114,114,114	0
56	MG	2a	1857	1/1	0.79	0.22	145,145,145,145	0
56	MG	2A	3671	1/1	0.79	0.32	85,85,85,85	0
56	MG	2a	1859	1/1	0.79	0.08	160,160,160,160	0
56	MG	1a	1861	1/1	0.79	0.12	216,216,216,216	0
56	MG	1a	1737	1/1	0.79	0.12	74,74,74,74	0
56	MG	2A	3162	1/1	0.79	0.49	102,102,102,102	0
56	MG	1A	4348	1/1	0.79	0.46	62,62,62,62	0
56	MG	2A	3449	1/1	0.79	0.23	84,84,84,84	0
56	MG	1a	1651	1/1	0.79	0.23	121,121,121,121	0
56	MG	1A	4307	1/1	0.79	0.16	96,96,96,96	0
56	MG	2A	3682	1/1	0.79	0.14	123,123,123,123	0
56	MG	2A	3308	1/1	0.79	0.15	100,100,100,100	0
56	MG	2A	3309	1/1	0.79	0.12	108,108,108,108	0
56	MG	1z	101	1/1	0.80	0.18	151,151,151,151	0
56	MG	2A	3814	1/1	0.80	0.09	128,128,128,128	0
56	MG	1A	4448	1/1	0.80	0.36	78,78,78,78	0
56	MG	1a	1794	1/1	0.80	0.07	84,84,84,84	0
56	MG	1A	4584	1/1	0.80	0.11	105,105,105,105	0
56	MG	2A	3724	1/1	0.80	0.14	91,91,91,91	0
56	MG	1A	4251	1/1	0.80	0.19	60,60,60,60	0
56	MG	2h	204	1/1	0.80	0.11	164,164,164,164	0
56	MG	2V	201	1/1	0.80	0.12	129,129,129,129	0
56	MG	2A	3825	1/1	0.80	0.16	97,97,97,97	0
56	MG	2A	3555	1/1	0.80	0.39	107,107,107,107	0
56	MG	1A	4136	1/1	0.80	0.21	92,92,92,92	0
56	MG	2A	3557	1/1	0.80	0.19	90,90,90,90	0
56	MG	2A	3737	1/1	0.80	0.26	100,100,100,100	0
56	MG	2A	3014	1/1	0.80	0.25	108,108,108,108	0
56	MG	1A	4911	1/1	0.80	0.13	62,62,62,62	0
56	MG	1a	1619	1/1	0.80	0.25	95,95,95,95	0
56	MG	1A	4315	1/1	0.80	0.21	111,111,111,111	0
56	MG	1A	4460	1/1	0.80	0.22	77,77,77,77	0
56	MG	26	103	1/1	0.80	0.24	119,119,119,119	0
56	MG	1A	4520	1/1	0.80	0.24	75,75,75,75	0
56	MG	2A	3321	1/1	0.80	0.21	86,86,86,86	0
56	MG	1a	1656	1/1	0.80	0.30	102,102,102,102	0
56	MG	1e	302	1/1	0.80	0.14	147,147,147,147	0
56	MG	1A	4640	1/1	0.80	0.20	69,69,69,69	0
56	MG	2A	3165	1/1	0.80	0.37	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3332	1/1	0.80	0.18	97,97,97,97	0
56	MG	2a	1604	1/1	0.80	0.15	148,148,148,148	0
56	MG	2B	205	1/1	0.80	0.18	119,119,119,119	0
56	MG	2A	3170	1/1	0.80	0.17	90,90,90,90	0
56	MG	2A	3024	1/1	0.80	0.16	123,123,123,123	0
56	MG	2B	211	1/1	0.80	0.10	88,88,88,88	0
56	MG	1A	4211	1/1	0.80	0.44	57,57,57,57	0
56	MG	1A	4647	1/1	0.80	0.18	68,68,68,68	0
56	MG	1a	1847	1/1	0.80	0.10	184,184,184,184	0
56	MG	1A	4178	1/1	0.80	0.21	60,60,60,60	0
56	MG	1a	1811	1/1	0.80	0.27	99,99,99,99	0
56	MG	1A	4180	1/1	0.80	0.44	48,48,48,48	0
56	MG	2A	3034	1/1	0.80	0.16	100,100,100,100	0
56	MG	2A	3035	1/1	0.80	0.09	116,116,116,116	0
56	MG	2A	3038	1/1	0.80	0.07	69,69,69,69	0
56	MG	1A	4687	1/1	0.80	0.21	88,88,88,88	0
56	MG	2A	3257	1/1	0.80	0.32	87,87,87,87	0
56	MG	2A	3259	1/1	0.80	0.24	82,82,82,82	0
56	MG	1q	201	1/1	0.80	0.21	115,115,115,115	0
56	MG	1A	4286	1/1	0.80	0.21	71,71,71,71	0
56	MG	1A	4167	1/1	0.80	0.40	58,58,58,58	0
56	MG	1A	4352	1/1	0.80	0.25	61,61,61,61	0
56	MG	1A	4359	1/1	0.80	0.21	71,71,71,71	0
56	MG	1A	4841	1/1	0.80	0.27	103,103,103,103	0
56	MG	2A	3446	1/1	0.80	0.35	84,84,84,84	0
56	MG	1E	302	1/1	0.80	0.36	59,59,59,59	0
56	MG	2a	1850	1/1	0.80	0.17	154,154,154,154	0
56	MG	2E	303	1/1	0.80	0.04	81,81,81,81	0
56	MG	1A	4134	1/1	0.80	0.29	72,72,72,72	0
56	MG	1A	4549	1/1	0.80	0.16	125,125,125,125	0
56	MG	2A	3700	1/1	0.80	0.16	113,113,113,113	0
56	MG	1T	205	1/1	0.80	0.27	109,109,109,109	0
56	MG	1A	4079	1/1	0.81	0.31	58,58,58,58	0
56	MG	1A	5010	1/1	0.81	0.14	75,75,75,75	0
56	MG	1O	205	1/1	0.81	0.16	112,112,112,112	0
56	MG	2A	3476	1/1	0.81	0.12	116,116,116,116	0
56	MG	2a	1752	1/1	0.81	0.12	134,134,134,134	0
56	MG	1A	4320	1/1	0.81	0.20	91,91,91,91	0
56	MG	1A	4159	1/1	0.81	0.32	50,50,50,50	0
56	MG	1A	4712	1/1	0.81	0.25	76,76,76,76	0
56	MG	2A	3168	1/1	0.81	0.52	90,90,90,90	0
56	MG	2a	1611	1/1	0.81	0.09	143,143,143,143	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	1759	1/1	0.81	0.10	218,218,218,218	0
56	MG	1A	4390	1/1	0.81	0.20	82,82,82,82	0
56	MG	1A	4161	1/1	0.81	0.30	58,58,58,58	0
56	MG	2A	3174	1/1	0.81	0.22	109,109,109,109	0
56	MG	1a	1603	1/1	0.81	0.20	98,98,98,98	0
56	MG	1A	4727	1/1	0.81	0.12	82,82,82,82	0
56	MG	2A	3655	1/1	0.81	0.23	117,117,117,117	0
56	MG	2a	1689	1/1	0.81	0.25	156,156,156,156	0
56	MG	2A	3500	1/1	0.81	0.33	93,93,93,93	0
56	MG	1A	4271	1/1	0.81	0.23	62,62,62,62	0
56	MG	1A	4734	1/1	0.81	0.12	64,64,64,64	0
56	MG	1A	4220	1/1	0.81	0.19	60,60,60,60	0
56	MG	1A	4886	1/1	0.81	0.13	67,67,67,67	0
56	MG	2k	202	1/1	0.81	0.24	124,124,124,124	0
56	MG	1A	4006	1/1	0.81	0.13	59,59,59,59	0
56	MG	2A	3509	1/1	0.81	0.23	93,93,93,93	0
56	MG	1A	4428	1/1	0.81	0.13	59,59,59,59	0
56	MG	1A	4429	1/1	0.81	0.56	54,54,54,54	0
56	MG	1B	201	1/1	0.81	0.21	106,106,106,106	0
56	MG	1A	4895	1/1	0.81	0.28	59,59,59,59	0
56	MG	1A	4618	1/1	0.81	0.12	95,95,95,95	0
56	MG	2A	3262	1/1	0.81	0.29	73,73,73,73	0
56	MG	1A	4431	1/1	0.81	0.22	72,72,72,72	0
56	MG	2A	3797	1/1	0.81	0.17	97,97,97,97	0
56	MG	2p	101	1/1	0.81	0.22	154,154,154,154	0
56	MG	2A	3359	1/1	0.81	0.43	84,84,84,84	0
56	MG	1A	4432	1/1	0.81	0.09	95,95,95,95	0
56	MG	2A	3427	1/1	0.81	0.23	95,95,95,95	0
56	MG	2A	3362	1/1	0.81	0.14	99,99,99,99	0
56	MG	2A	3807	1/1	0.81	0.11	132,132,132,132	0
56	MG	2P	203	1/1	0.81	0.30	113,113,113,113	0
56	MG	2A	3128	1/1	0.81	0.35	130,130,130,130	0
56	MG	2A	3276	1/1	0.81	0.25	85,85,85,85	0
56	MG	2a	1646	1/1	0.81	0.08	120,120,120,120	0
56	MG	2a	1889	1/1	0.81	0.17	127,127,127,127	0
56	MG	2A	3603	1/1	0.81	0.20	103,103,103,103	0
56	MG	1B	210	1/1	0.81	0.20	89,89,89,89	0
56	MG	1A	4227	1/1	0.81	0.12	86,86,86,86	0
56	MG	2A	3816	1/1	0.81	0.16	121,121,121,121	0
56	MG	2A	3608	1/1	0.81	0.11	111,111,111,111	0
56	MG	2A	3713	1/1	0.81	0.25	112,112,112,112	0
56	MG	2A	3609	1/1	0.81	0.13	132,132,132,132	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4365	1/1	0.81	0.31	58,58,58,58	0
56	MG	1A	4446	1/1	0.81	0.27	59,59,59,59	0
56	MG	1A	4063	1/1	0.81	0.18	64,64,64,64	0
56	MG	2A	3827	1/1	0.81	0.15	105,105,105,105	0
56	MG	1A	4010	1/1	0.81	0.14	73,73,73,73	0
56	MG	2a	1809	1/1	0.81	0.11	122,122,122,122	0
56	MG	2A	3017	1/1	0.81	0.12	111,111,111,111	0
56	MG	2A	3539	1/1	0.81	0.12	125,125,125,125	0
56	MG	2A	3450	1/1	0.81	0.26	85,85,85,85	0
56	MG	2a	1817	1/1	0.81	0.11	133,133,133,133	0
56	MG	1A	4243	1/1	0.81	0.16	65,65,65,65	0
56	MG	1A	4972	1/1	0.81	0.17	77,77,77,77	0
56	MG	1A	4815	1/1	0.81	0.18	77,77,77,77	0
56	MG	2A	3151	1/1	0.81	0.09	97,97,97,97	0
56	MG	1d	302	1/1	0.81	0.11	149,149,149,149	0
56	MG	2A	3551	1/1	0.81	0.20	104,104,104,104	0
56	MG	1E	301	1/1	0.81	0.35	57,57,57,57	0
56	MG	1a	1890	1/1	0.82	0.07	218,218,218,218	0
56	MG	2A	3543	1/1	0.82	0.16	100,100,100,100	0
56	MG	1B	204	1/1	0.82	0.14	93,93,93,93	0
56	MG	1a	1846	1/1	0.82	0.20	193,193,193,193	0
56	MG	2A	3547	1/1	0.82	0.21	104,104,104,104	0
56	MG	1A	4965	1/1	0.82	0.41	66,66,66,66	0
56	MG	2A	3481	1/1	0.82	0.23	112,112,112,112	0
56	MG	1a	1618	1/1	0.82	0.29	94,94,94,94	0
56	MG	1A	4393	1/1	0.82	0.16	84,84,84,84	0
56	MG	1a	1850	1/1	0.82	0.29	113,113,113,113	0
56	MG	2A	3616	1/1	0.82	0.22	93,93,93,93	0
56	MG	2A	3617	1/1	0.82	0.29	102,102,102,102	0
56	MG	2A	3554	1/1	0.82	0.18	89,89,89,89	0
56	MG	1A	4323	1/1	0.82	0.21	85,85,85,85	0
56	MG	2D	301	1/1	0.82	0.11	74,74,74,74	0
56	MG	2A	3356	1/1	0.82	0.28	80,80,80,80	0
56	MG	2A	3029	1/1	0.82	0.18	105,105,105,105	0
56	MG	1B	209	1/1	0.82	0.25	89,89,89,89	0
56	MG	1A	4053	1/1	0.82	0.22	112,112,112,112	0
56	MG	1A	4155	1/1	0.82	0.24	60,60,60,60	0
56	MG	1A	4867	1/1	0.82	0.19	58,58,58,58	0
56	MG	1A	4417	1/1	0.82	0.34	52,52,52,52	0
56	MG	2A	3507	1/1	0.82	0.14	128,128,128,128	0
56	MG	2A	3634	1/1	0.82	0.17	104,104,104,104	0
56	MG	1A	4656	1/1	0.82	0.23	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3637	1/1	0.82	0.32	88,88,88,88	0
56	MG	2a	1904	1/1	0.82	0.12	245,245,245,245	0
56	MG	2A	3040	1/1	0.82	0.17	116,116,116,116	0
56	MG	1A	4052	1/1	0.82	0.27	92,92,92,92	0
56	MG	1B	220	1/1	0.82	0.27	79,79,79,79	0
56	MG	2A	3745	1/1	0.82	0.37	112,112,112,112	0
56	MG	2A	3371	1/1	0.82	0.11	113,113,113,113	0
56	MG	1A	4375	1/1	0.82	0.44	65,65,65,65	0
56	MG	1A	4463	1/1	0.82	0.20	62,62,62,62	0
56	MG	1B	225	1/1	0.82	0.14	92,92,92,92	0
56	MG	1A	4695	1/1	0.82	0.23	74,74,74,74	0
56	MG	20	103	1/1	0.82	0.19	97,97,97,97	0
56	MG	1A	4087	1/1	0.82	0.07	69,69,69,69	0
56	MG	2A	3845	1/1	0.82	0.10	85,85,85,85	0
56	MG	1A	4908	1/1	0.82	0.23	64,64,64,64	0
56	MG	1A	4269	1/1	0.82	0.11	69,69,69,69	0
56	MG	2A	3011	1/1	0.82	0.21	104,104,104,104	0
56	MG	2c	301	1/1	0.82	0.06	225,225,225,225	0
56	MG	1A	4216	1/1	0.82	0.18	62,62,62,62	0
56	MG	2A	3123	1/1	0.82	0.10	133,133,133,133	0
56	MG	1A	4723	1/1	0.82	0.13	77,77,77,77	0
56	MG	1A	4619	1/1	0.82	0.10	103,103,103,103	0
56	MG	2A	3666	1/1	0.82	0.35	101,101,101,101	0
56	MG	2A	3462	1/1	0.82	0.24	104,104,104,104	0
56	MG	1A	4621	1/1	0.82	0.21	114,114,114,114	0
56	MG	1A	4935	1/1	0.82	0.20	67,67,67,67	0
56	MG	1A	4526	1/1	0.82	0.09	54,54,54,54	0
56	MG	1A	4360	1/1	0.82	0.12	88,88,88,88	0
56	MG	2A	3343	1/1	0.82	0.31	89,89,89,89	0
56	MG	2A	3345	1/1	0.82	0.26	83,83,83,83	0
56	MG	2A	3382	1/1	0.83	0.28	101,101,101,101	0
56	MG	1A	4519	1/1	0.83	0.23	94,94,94,94	0
56	MG	1A	4662	1/1	0.83	0.19	87,87,87,87	0
56	MG	2A	3479	1/1	0.83	0.12	122,122,122,122	0
56	MG	1A	4484	1/1	0.83	0.20	60,60,60,60	0
56	MG	1S	202	1/1	0.83	0.15	92,92,92,92	0
56	MG	2d	302	1/1	0.83	0.11	164,164,164,164	0
56	MG	1a	1893	1/1	0.83	0.23	98,98,98,98	0
56	MG	1A	4764	1/1	0.83	0.13	64,64,64,64	0
56	MG	1A	4767	1/1	0.83	0.15	80,80,80,80	0
56	MG	1A	4768	1/1	0.83	0.18	65,65,65,65	0
56	MG	1a	1897	1/1	0.83	0.13	124,124,124,124	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3678	1/1	0.83	0.25	100,100,100,100	0
56	MG	1A	4772	1/1	0.83	0.27	70,70,70,70	0
56	MG	18	102	1/1	0.83	0.09	66,66,66,66	0
56	MG	2A	3301	1/1	0.83	0.14	96,96,96,96	0
56	MG	2A	3683	1/1	0.83	0.32	102,102,102,102	0
56	MG	2A	3209	1/1	0.83	0.27	93,93,93,93	0
56	MG	1a	1796	1/1	0.83	0.26	105,105,105,105	0
56	MG	2a	1755	1/1	0.83	0.14	168,168,168,168	0
56	MG	1A	4366	1/1	0.83	0.34	60,60,60,60	0
56	MG	2A	3213	1/1	0.83	0.42	88,88,88,88	0
56	MG	1a	1698	1/1	0.83	0.22	120,120,120,120	0
56	MG	1A	4617	1/1	0.83	0.08	98,98,98,98	0
56	MG	2A	3316	1/1	0.83	0.15	85,85,85,85	0
56	MG	2A	3217	1/1	0.83	0.23	91,91,91,91	0
56	MG	2A	3320	1/1	0.83	0.28	88,88,88,88	0
56	MG	1a	1749	1/1	0.83	0.17	134,134,134,134	0
56	MG	1A	4690	1/1	0.83	0.09	83,83,83,83	0
56	MG	2A	3077	1/1	0.83	0.33	108,108,108,108	0
56	MG	1A	4427	1/1	0.83	0.27	53,53,53,53	0
56	MG	2A	3010	1/1	0.83	0.41	88,88,88,88	0
56	MG	1A	4156	1/1	0.83	0.14	54,54,54,54	0
56	MG	1A	4246	1/1	0.83	0.26	51,51,51,51	0
56	MG	2A	3722	1/1	0.83	0.20	128,128,128,128	0
56	MG	1A	4802	1/1	0.83	0.09	73,73,73,73	0
56	MG	1A	4931	1/1	0.83	0.06	125,125,125,125	0
56	MG	2A	3159	1/1	0.83	0.17	100,100,100,100	0
56	MG	2A	3089	1/1	0.83	0.18	122,122,122,122	0
56	MG	1A	4714	1/1	0.83	0.10	99,99,99,99	0
56	MG	1A	4715	1/1	0.83	0.19	90,90,90,90	0
56	MG	1a	1762	1/1	0.83	0.16	103,103,103,103	0
56	MG	2A	3619	1/1	0.83	0.17	133,133,133,133	0
56	MG	1A	4812	1/1	0.83	0.18	72,72,72,72	0
56	MG	1A	4130	1/1	0.83	0.14	58,58,58,58	0
56	MG	1A	4462	1/1	0.83	0.29	74,74,74,74	0
56	MG	2A	3171	1/1	0.83	0.23	88,88,88,88	0
56	MG	1A	4402	1/1	0.83	0.24	73,73,73,73	0
56	MG	1A	4823	1/1	0.83	0.13	74,74,74,74	0
56	MG	1A	4280	1/1	0.83	0.32	55,55,55,55	0
56	MG	2A	3177	1/1	0.83	0.20	113,113,113,113	0
56	MG	1a	1676	1/1	0.83	0.09	151,151,151,151	0
56	MG	1A	4111	1/1	0.83	0.21	49,49,49,49	0
56	MG	1a	1773	1/1	0.83	0.11	143,143,143,143	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3457	1/1	0.83	0.25	93,93,93,93	0
56	MG	2A	3182	1/1	0.83	0.14	105,105,105,105	0
56	MG	1A	4242	1/1	0.83	0.19	71,71,71,71	0
56	MG	1A	4644	1/1	0.83	0.26	65,65,65,65	0
56	MG	2A	3463	1/1	0.83	0.16	67,67,67,67	0
56	MG	1A	4550	1/1	0.83	0.10	89,89,89,89	0
56	MG	2A	3769	1/1	0.83	0.21	90,90,90,90	0
56	MG	1A	4848	1/1	0.83	0.22	74,74,74,74	0
56	MG	2A	3466	1/1	0.83	0.20	129,129,129,129	0
56	MG	2A	3271	1/1	0.83	0.22	113,113,113,113	0
56	MG	2A	3559	1/1	0.83	0.25	91,91,91,91	0
56	MG	2A	3780	1/1	0.83	0.17	90,90,90,90	0
56	MG	1A	4862	1/1	0.83	0.20	74,74,74,74	0
56	MG	2D	306	1/1	0.83	0.09	101,101,101,101	0
56	MG	2a	1644	1/1	0.83	0.15	125,125,125,125	0
56	MG	2A	3472	1/1	0.83	0.16	99,99,99,99	0
56	MG	2A	3380	1/1	0.83	0.28	93,93,93,93	0
56	MG	2A	3784	1/1	0.83	0.10	110,110,110,110	0
56	MG	2A	3196	1/1	0.83	0.33	92,92,92,92	0
56	MG	1A	4451	1/1	0.84	0.20	70,70,70,70	0
56	MG	1s	102	1/1	0.84	0.15	229,229,229,229	0
56	MG	2A	3706	1/1	0.84	0.24	94,94,94,94	0
56	MG	1A	4335	1/1	0.84	0.41	76,76,76,76	0
56	MG	2A	3715	1/1	0.84	0.20	109,109,109,109	0
56	MG	1A	4915	1/1	0.84	0.09	85,85,85,85	0
56	MG	2A	3452	1/1	0.84	0.20	90,90,90,90	0
56	MG	1A	4523	1/1	0.84	0.29	68,68,68,68	0
56	MG	2A	3459	1/1	0.84	0.34	98,98,98,98	0
56	MG	1A	4454	1/1	0.84	0.17	78,78,78,78	0
56	MG	1B	217	1/1	0.84	0.14	71,71,71,71	0
56	MG	2B	219	1/1	0.84	0.09	77,77,77,77	0
56	MG	1A	4338	1/1	0.84	0.18	67,67,67,67	0
56	MG	1A	4785	1/1	0.84	0.09	70,70,70,70	0
56	MG	2A	3342	1/1	0.84	0.30	86,86,86,86	0
56	MG	1A	4661	1/1	0.84	0.19	80,80,80,80	0
56	MG	1A	4933	1/1	0.84	0.09	102,102,102,102	0
56	MG	1a	1870	1/1	0.84	0.19	220,220,220,220	0
56	MG	2A	3589	1/1	0.84	0.17	127,127,127,127	0
56	MG	2a	1777	1/1	0.84	0.24	117,117,117,117	0
56	MG	2A	3002	1/1	0.84	0.15	99,99,99,99	0
56	MG	2A	3003	1/1	0.84	0.17	108,108,108,108	0
56	MG	1D	305	1/1	0.84	0.19	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4302	1/1	0.84	0.18	80,80,80,80	0
56	MG	1A	4797	1/1	0.84	0.17	78,78,78,78	0
56	MG	1a	1880	1/1	0.84	0.09	125,125,125,125	0
56	MG	2D	302	1/1	0.84	0.13	80,80,80,80	0
56	MG	2D	305	1/1	0.84	0.14	96,96,96,96	0
56	MG	1A	4075	1/1	0.84	0.34	83,83,83,83	0
56	MG	2a	1788	1/1	0.84	0.14	229,229,229,229	0
56	MG	1A	4127	1/1	0.84	0.37	63,63,63,63	0
56	MG	1O	204	1/1	0.84	0.12	87,87,87,87	0
56	MG	1A	4158	1/1	0.84	0.17	58,58,58,58	0
56	MG	2A	3360	1/1	0.84	0.30	78,78,78,78	0
56	MG	1A	4806	1/1	0.84	0.29	73,73,73,73	0
56	MG	1a	1667	1/1	0.84	0.17	132,132,132,132	0
56	MG	2A	3760	1/1	0.84	0.16	133,133,133,133	0
56	MG	2P	201	1/1	0.84	0.38	100,100,100,100	0
56	MG	1A	4689	1/1	0.84	0.16	89,89,89,89	0
56	MG	2f	303	1/1	0.84	0.05	135,135,135,135	0
56	MG	2A	3240	1/1	0.84	0.14	120,120,120,120	0
56	MG	1A	4029	1/1	0.84	0.24	51,51,51,51	0
56	MG	2A	3242	1/1	0.84	0.31	106,106,106,106	0
56	MG	1a	1818	1/1	0.84	0.17	186,186,186,186	0
56	MG	1A	4981	1/1	0.84	0.24	57,57,57,57	0
56	MG	1A	4197	1/1	0.84	0.25	94,94,94,94	0
56	MG	1A	4696	1/1	0.84	0.20	72,72,72,72	0
56	MG	2A	3379	1/1	0.84	0.16	101,101,101,101	0
56	MG	1A	4131	1/1	0.84	0.22	56,56,56,56	0
56	MG	1a	1901	1/1	0.84	0.09	113,113,113,113	0
56	MG	2a	1694	1/1	0.84	0.16	146,146,146,146	0
56	MG	2A	3511	1/1	0.84	0.17	89,89,89,89	0
56	MG	1A	4106	1/1	0.84	0.34	50,50,50,50	0
56	MG	1a	1604	1/1	0.84	0.22	98,98,98,98	0
56	MG	1a	1905	1/1	0.84	0.30	108,108,108,108	0
56	MG	1a	1754	1/1	0.84	0.40	100,100,100,100	0
56	MG	2A	3146	1/1	0.84	0.20	87,87,87,87	0
56	MG	1a	1907	1/1	0.84	0.13	117,117,117,117	0
56	MG	2A	3791	1/1	0.84	0.27	93,93,93,93	0
56	MG	1a	1606	1/1	0.84	0.14	115,115,115,115	0
56	MG	1a	1756	1/1	0.84	0.21	109,109,109,109	0
56	MG	2A	3525	1/1	0.84	0.17	106,106,106,106	0
56	MG	1A	4368	1/1	0.84	0.24	63,63,63,63	0
56	MG	1a	1911	1/1	0.84	0.05	105,105,105,105	0
56	MG	2A	3157	1/1	0.84	0.10	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3264	1/1	0.84	0.39	81,81,81,81	0
56	MG	1A	4202	1/1	0.84	0.14	95,95,95,95	0
56	MG	1a	1615	1/1	0.84	0.20	92,92,92,92	0
56	MG	2A	3806	1/1	0.84	0.22	114,114,114,114	0
56	MG	1A	5035	1/1	0.84	0.25	68,68,68,68	0
56	MG	1A	5036	1/1	0.84	0.10	72,72,72,72	0
56	MG	2A	3272	1/1	0.84	0.37	81,81,81,81	0
56	MG	2A	3050	1/1	0.84	0.18	93,93,93,93	0
56	MG	2A	3278	1/1	0.84	0.33	86,86,86,86	0
56	MG	1A	4721	1/1	0.84	0.17	82,82,82,82	0
56	MG	1A	4563	1/1	0.84	0.17	68,68,68,68	0
56	MG	1A	4581	1/1	0.84	0.28	61,61,61,61	0
56	MG	1A	4844	1/1	0.84	0.10	77,77,77,77	0
56	MG	1A	4495	1/1	0.84	0.19	78,78,78,78	0
56	MG	1a	1628	1/1	0.84	0.21	101,101,101,101	0
56	MG	1A	4501	1/1	0.84	0.18	71,71,71,71	0
56	MG	1A	4606	1/1	0.84	0.14	67,67,67,67	0
56	MG	2w	202	1/1	0.84	0.16	88,88,88,88	0
56	MG	1A	4084	1/1	0.84	0.24	61,61,61,61	0
56	MG	1A	4874	1/1	0.84	0.15	87,87,87,87	0
56	MG	1A	5062	1/1	0.84	0.17	87,87,87,87	0
56	MG	2A	3299	1/1	0.84	0.32	91,91,91,91	0
56	MG	1A	4294	1/1	0.84	0.16	84,84,84,84	0
56	MG	2A	3833	1/1	0.84	0.23	111,111,111,111	0
56	MG	1A	4297	1/1	0.84	0.16	99,99,99,99	0
56	MG	1A	4141	1/1	0.84	0.28	63,63,63,63	0
56	MG	1A	4887	1/1	0.84	0.15	67,67,67,67	0
56	MG	2A	3840	1/1	0.84	0.26	117,117,117,117	0
56	MG	2A	3186	1/1	0.84	0.25	105,105,105,105	0
56	MG	1A	4510	1/1	0.84	0.19	69,69,69,69	0
56	MG	2A	3190	1/1	0.84	0.22	98,98,98,98	0
56	MG	2A	3434	1/1	0.84	0.20	95,95,95,95	0
56	MG	1A	4447	1/1	0.84	0.20	65,65,65,65	0
56	MG	2A	3312	1/1	0.84	0.14	129,129,129,129	0
56	MG	1A	4147	1/1	0.84	0.23	57,57,57,57	0
56	MG	1A	4389	1/1	0.84	0.16	78,78,78,78	0
56	MG	1a	1718	1/1	0.84	0.15	107,107,107,107	0
60	K	2A	3001	1/1	0.84	0.22	108,108,108,108	0
56	MG	2a	1823	1/1	0.85	0.12	153,153,153,153	0
56	MG	2A	3602	1/1	0.85	0.14	97,97,97,97	0
56	MG	1A	4019	1/1	0.85	0.17	77,77,77,77	0
56	MG	2A	3079	1/1	0.85	0.14	125,125,125,125	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4778	1/1	0.85	0.18	71,71,71,71	0
56	MG	2A	3709	1/1	0.85	0.19	93,93,93,93	0
56	MG	1A	4868	1/1	0.85	0.29	62,62,62,62	0
56	MG	2Y	202	1/1	0.85	0.12	137,137,137,137	0
56	MG	1a	1652	1/1	0.85	0.28	117,117,117,117	0
56	MG	2Z	402	1/1	0.85	0.12	120,120,120,120	0
56	MG	2A	3431	1/1	0.85	0.23	93,93,93,93	0
56	MG	1A	4425	1/1	0.85	0.21	78,78,78,78	0
56	MG	2a	1667	1/1	0.85	0.12	151,151,151,151	0
56	MG	2A	3169	1/1	0.85	0.21	81,81,81,81	0
56	MG	1A	5019	1/1	0.85	0.13	75,75,75,75	0
56	MG	1A	5021	1/1	0.85	0.13	81,81,81,81	0
56	MG	1A	4880	1/1	0.85	0.14	83,83,83,83	0
56	MG	2A	3173	1/1	0.85	0.11	87,87,87,87	0
56	MG	1A	4703	1/1	0.85	0.18	64,64,64,64	0
56	MG	1A	4882	1/1	0.85	0.19	82,82,82,82	0
56	MG	2a	1854	1/1	0.85	0.11	286,286,286,286	0
56	MG	1A	4361	1/1	0.85	0.12	84,84,84,84	0
56	MG	1A	5047	1/1	0.85	0.08	89,89,89,89	0
56	MG	1A	4885	1/1	0.85	0.23	92,92,92,92	0
56	MG	1A	4455	1/1	0.85	0.13	75,75,75,75	0
56	MG	2A	3263	1/1	0.85	0.21	89,89,89,89	0
56	MG	2A	3742	1/1	0.85	0.21	91,91,91,91	0
56	MG	1A	4384	1/1	0.85	0.20	66,66,66,66	0
56	MG	1A	4888	1/1	0.85	0.07	69,69,69,69	0
56	MG	1A	4386	1/1	0.85	0.34	64,64,64,64	0
56	MG	1A	4279	1/1	0.85	0.11	64,64,64,64	0
56	MG	1A	4001	1/1	0.85	0.25	65,65,65,65	0
56	MG	1A	4560	1/1	0.85	0.12	59,59,59,59	0
56	MG	1A	4901	1/1	0.85	0.29	61,61,61,61	0
56	MG	2a	1872	1/1	0.85	0.15	120,120,120,120	0
56	MG	1A	4093	1/1	0.85	0.21	62,62,62,62	0
56	MG	2B	206	1/1	0.85	0.17	103,103,103,103	0
56	MG	1A	4730	1/1	0.85	0.14	71,71,71,71	0
56	MG	2A	3110	1/1	0.85	0.08	189,189,189,189	0
56	MG	2A	3026	1/1	0.85	0.20	117,117,117,117	0
56	MG	1A	4657	1/1	0.85	0.12	84,84,84,84	0
56	MG	1a	1624	1/1	0.85	0.19	102,102,102,102	0
56	MG	1A	4813	1/1	0.85	0.20	70,70,70,70	0
56	MG	1A	4660	1/1	0.85	0.28	84,84,84,84	0
56	MG	1A	4737	1/1	0.85	0.10	76,76,76,76	0
56	MG	1B	207	1/1	0.85	0.15	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3291	1/1	0.85	0.26	75,75,75,75	0
56	MG	2A	3568	1/1	0.85	0.26	92,92,92,92	0
56	MG	1A	4433	1/1	0.85	0.18	79,79,79,79	0
56	MG	1A	4391	1/1	0.85	0.23	93,93,93,93	0
56	MG	1A	4666	1/1	0.85	0.29	78,78,78,78	0
56	MG	1a	1750	1/1	0.85	0.13	134,134,134,134	0
56	MG	2A	3664	1/1	0.85	0.17	112,112,112,112	0
56	MG	1A	4345	1/1	0.85	0.24	65,65,65,65	0
56	MG	1A	4600	1/1	0.85	0.15	78,78,78,78	0
56	MG	1A	4956	1/1	0.85	0.11	71,71,71,71	0
56	MG	2A	3055	1/1	0.85	0.15	102,102,102,102	0
56	MG	1A	4762	1/1	0.85	0.22	71,71,71,71	0
56	MG	1a	1873	1/1	0.85	0.19	214,214,214,214	0
56	MG	1A	4962	1/1	0.85	0.11	69,69,69,69	0
56	MG	1A	4833	1/1	0.85	0.20	70,70,70,70	0
56	MG	1A	4838	1/1	0.85	0.22	73,73,73,73	0
56	MG	2A	3145	1/1	0.85	0.14	100,100,100,100	0
56	MG	1A	4117	1/1	0.85	0.18	73,73,73,73	0
56	MG	2A	3231	1/1	0.85	0.23	95,95,95,95	0
56	MG	1A	4309	1/1	0.85	0.23	79,79,79,79	0
56	MG	1a	1700	1/1	0.85	0.18	161,161,161,161	0
56	MG	2A	3686	1/1	0.85	0.13	107,107,107,107	0
56	MG	1a	1824	1/1	0.85	0.09	213,213,213,213	0
56	MG	1A	4196	1/1	0.85	0.19	73,73,73,73	0
56	MG	1a	1703	1/1	0.85	0.17	149,149,149,149	0
56	MG	1A	4977	1/1	0.85	0.19	78,78,78,78	0
56	MG	2A	3334	1/1	0.85	0.25	105,105,105,105	0
56	MG	1A	4377	1/1	0.85	0.25	80,80,80,80	0
59	GDP	2v	704	28/28	0.85	0.11	186,186,186,186	0
56	MG	2A	3811	1/1	0.85	0.15	115,115,115,115	0
56	MG	2a	1816	1/1	0.86	0.09	156,156,156,156	0
56	MG	1A	4439	1/1	0.86	0.15	80,80,80,80	0
56	MG	2a	1819	1/1	0.86	0.16	150,150,150,150	0
56	MG	1A	4138	1/1	0.86	0.18	72,72,72,72	0
56	MG	2A	3277	1/1	0.86	0.28	88,88,88,88	0
56	MG	1A	4027	1/1	0.86	0.10	62,62,62,62	0
56	MG	1A	4731	1/1	0.86	0.26	54,54,54,54	0
56	MG	1a	1709	1/1	0.86	0.19	107,107,107,107	0
56	MG	1a	1891	1/1	0.86	0.14	89,89,89,89	0
56	MG	1a	1841	1/1	0.86	0.08	231,231,231,231	0
56	MG	2a	1744	1/1	0.86	0.22	95,95,95,95	0
56	MG	1A	4667	1/1	0.86	0.22	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4669	1/1	0.86	0.20	89,89,89,89	0
56	MG	1A	4878	1/1	0.86	0.17	77,77,77,77	0
56	MG	2A	3216	1/1	0.86	0.17	100,100,100,100	0
56	MG	2A	3373	1/1	0.86	0.32	93,93,93,93	0
56	MG	1A	4879	1/1	0.86	0.08	77,77,77,77	0
56	MG	1a	1716	1/1	0.86	0.12	120,120,120,120	0
56	MG	1A	4410	1/1	0.86	0.30	47,47,47,47	0
56	MG	1A	4275	1/1	0.86	0.23	65,65,65,65	0
56	MG	1A	4960	1/1	0.86	0.09	91,91,91,91	0
56	MG	2A	3227	1/1	0.86	0.32	94,94,94,94	0
56	MG	2h	201	1/1	0.86	0.09	179,179,179,179	0
56	MG	2A	3228	1/1	0.86	0.27	98,98,98,98	0
56	MG	1A	4110	1/1	0.86	0.17	54,54,54,54	0
56	MG	2A	3304	1/1	0.86	0.12	127,127,127,127	0
56	MG	1A	4316	1/1	0.86	0.25	85,85,85,85	0
56	MG	1A	4126	1/1	0.86	0.17	78,78,78,78	0
56	MG	2a	1762	1/1	0.86	0.07	235,235,235,235	0
56	MG	2A	3233	1/1	0.86	0.35	101,101,101,101	0
56	MG	1A	4626	1/1	0.86	0.21	95,95,95,95	0
56	MG	2A	3042	1/1	0.86	0.07	112,112,112,112	0
56	MG	1A	4521	1/1	0.86	0.24	79,79,79,79	0
56	MG	1A	4039	1/1	0.86	0.17	79,79,79,79	0
56	MG	1A	4264	1/1	0.86	0.22	61,61,61,61	0
56	MG	2A	3175	1/1	0.86	0.08	58,58,58,58	0
56	MG	2A	3484	1/1	0.86	0.10	119,119,119,119	0
56	MG	2B	209	1/1	0.86	0.10	77,77,77,77	0
56	MG	2A	3052	1/1	0.86	0.20	103,103,103,103	0
56	MG	2A	3325	1/1	0.86	0.17	88,88,88,88	0
56	MG	2A	3649	1/1	0.86	0.21	110,110,110,110	0
56	MG	2A	3488	1/1	0.86	0.07	115,115,115,115	0
56	MG	19	101	1/1	0.86	0.11	71,71,71,71	0
56	MG	1A	4353	1/1	0.86	0.24	59,59,59,59	0
56	MG	2A	3770	1/1	0.86	0.30	87,87,87,87	0
56	MG	2A	3114	1/1	0.86	0.14	153,153,153,153	0
56	MG	2A	3575	1/1	0.86	0.07	70,70,70,70	0
56	MG	2A	3406	1/1	0.86	0.31	140,140,140,140	0
56	MG	1A	4993	1/1	0.86	0.09	85,85,85,85	0
56	MG	2a	1784	1/1	0.86	0.07	90,90,90,90	0
56	MG	1A	4587	1/1	0.86	0.30	72,72,72,72	0
56	MG	2A	3668	1/1	0.86	0.24	91,91,91,91	0
56	MG	1A	5009	1/1	0.86	0.17	72,72,72,72	0
56	MG	1a	1650	1/1	0.86	0.16	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3065	1/1	0.86	0.13	117,117,117,117	0
56	MG	2a	1707	1/1	0.86	0.07	85,85,85,85	0
56	MG	2A	3338	1/1	0.86	0.27	86,86,86,86	0
56	MG	1A	4589	1/1	0.86	0.17	79,79,79,79	0
56	MG	1A	4356	1/1	0.86	0.31	75,75,75,75	0
56	MG	1A	5014	1/1	0.86	0.10	71,71,71,71	0
56	MG	2A	3194	1/1	0.86	0.10	109,109,109,109	0
56	MG	2a	1895	1/1	0.86	0.18	156,156,156,156	0
56	MG	2A	3516	1/1	0.86	0.08	82,82,82,82	0
56	MG	1A	4659	1/1	0.86	0.05	87,87,87,87	0
56	MG	2a	1898	1/1	0.86	0.06	160,160,160,160	0
56	MG	2A	3519	1/1	0.86	0.22	91,91,91,91	0
56	MG	1A	4358	1/1	0.86	0.18	72,72,72,72	0
56	MG	2A	3132	1/1	0.86	0.11	141,141,141,141	0
56	MG	2A	3013	1/1	0.86	0.18	118,118,118,118	0
56	MG	1A	5020	1/1	0.86	0.14	69,69,69,69	0
56	MG	2A	3200	1/1	0.86	0.18	109,109,109,109	0
56	MG	2A	3805	1/1	0.86	0.14	100,100,100,100	0
56	MG	1a	1621	1/1	0.86	0.07	97,97,97,97	0
56	MG	1a	1658	1/1	0.86	0.15	114,114,114,114	0
56	MG	1A	4724	1/1	0.86	0.23	80,80,80,80	0
56	MG	2A	3809	1/1	0.86	0.23	86,86,86,86	0
56	MG	2a	1811	1/1	0.86	0.12	129,129,129,129	0
56	MG	2A	3605	1/1	0.86	0.20	105,105,105,105	0
56	MG	2A	3606	1/1	0.86	0.14	137,137,137,137	0
56	MG	2A	3139	1/1	0.86	0.14	102,102,102,102	0
56	MG	1A	5059	1/1	0.87	0.07	86,86,86,86	0
56	MG	1A	4897	1/1	0.87	0.17	66,66,66,66	0
56	MG	1A	4364	1/1	0.87	0.24	72,72,72,72	0
56	MG	1A	4903	1/1	0.87	0.13	61,61,61,61	0
56	MG	1A	4670	1/1	0.87	0.11	71,71,71,71	0
56	MG	1A	4553	1/1	0.87	0.09	91,91,91,91	0
56	MG	1A	4912	1/1	0.87	0.11	57,57,57,57	0
56	MG	1A	4681	1/1	0.87	0.12	67,67,67,67	0
56	MG	2A	3080	1/1	0.87	0.11	127,127,127,127	0
56	MG	1A	4037	1/1	0.87	0.27	89,89,89,89	0
56	MG	1A	4276	1/1	0.87	0.14	67,67,67,67	0
56	MG	2A	3475	1/1	0.87	0.12	111,111,111,111	0
56	MG	2A	3261	1/1	0.87	0.29	80,80,80,80	0
56	MG	1A	4099	1/1	0.87	0.17	69,69,69,69	0
56	MG	28	106	1/1	0.87	0.11	79,79,79,79	0
56	MG	1A	4930	1/1	0.87	0.08	110,110,110,110	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3688	1/1	0.87	0.14	143,143,143,143	0
56	MG	1A	4497	1/1	0.87	0.17	69,69,69,69	0
56	MG	1A	4060	1/1	0.87	0.15	72,72,72,72	0
56	MG	2A	3268	1/1	0.87	0.15	94,94,94,94	0
56	MG	1A	4502	1/1	0.87	0.08	70,70,70,70	0
56	MG	2A	3483	1/1	0.87	0.15	106,106,106,106	0
56	MG	2A	3829	1/1	0.87	0.14	113,113,113,113	0
56	MG	1A	4168	1/1	0.87	0.34	50,50,50,50	0
56	MG	2A	3698	1/1	0.87	0.22	108,108,108,108	0
56	MG	2A	3093	1/1	0.87	0.33	96,96,96,96	0
56	MG	1A	4038	1/1	0.87	0.33	81,81,81,81	0
56	MG	2a	1815	1/1	0.87	0.04	85,85,85,85	0
56	MG	1A	4598	1/1	0.87	0.12	59,59,59,59	0
56	MG	1A	4599	1/1	0.87	0.19	60,60,60,60	0
56	MG	2A	3710	1/1	0.87	0.14	95,95,95,95	0
56	MG	1A	4321	1/1	0.87	0.12	102,102,102,102	0
56	MG	2A	3594	1/1	0.87	0.07	74,74,74,74	0
56	MG	1A	4082	1/1	0.87	0.13	58,58,58,58	0
56	MG	2A	3844	1/1	0.87	0.16	107,107,107,107	0
56	MG	2A	3596	1/1	0.87	0.19	100,100,100,100	0
56	MG	1a	1889	1/1	0.87	0.07	153,153,153,153	0
56	MG	1A	4140	1/1	0.87	0.22	70,70,70,70	0
56	MG	2a	1829	1/1	0.87	0.15	147,147,147,147	0
56	MG	1a	1812	1/1	0.87	0.34	88,88,88,88	0
56	MG	1A	4513	1/1	0.87	0.20	78,78,78,78	0
56	MG	1a	1815	1/1	0.87	0.07	171,171,171,171	0
56	MG	1A	4024	1/1	0.87	0.11	78,78,78,78	0
56	MG	1A	4515	1/1	0.87	0.20	70,70,70,70	0
56	MG	1A	4331	1/1	0.87	0.25	73,73,73,73	0
56	MG	1A	4975	1/1	0.87	0.20	76,76,76,76	0
56	MG	1A	4234	1/1	0.87	0.26	59,59,59,59	0
56	MG	2a	1631	1/1	0.87	0.11	151,151,151,151	0
56	MG	2A	3738	1/1	0.87	0.14	96,96,96,96	0
56	MG	2A	3294	1/1	0.87	0.33	91,91,91,91	0
56	MG	1A	4842	1/1	0.87	0.13	78,78,78,78	0
56	MG	1A	4984	1/1	0.87	0.12	87,87,87,87	0
56	MG	1A	4237	1/1	0.87	0.17	73,73,73,73	0
56	MG	1A	4847	1/1	0.87	0.24	72,72,72,72	0
56	MG	1A	5006	1/1	0.87	0.08	74,74,74,74	0
56	MG	2A	3303	1/1	0.87	0.08	113,113,113,113	0
56	MG	1A	4188	1/1	0.87	0.08	68,68,68,68	0
56	MG	1A	4861	1/1	0.87	0.14	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3411	1/1	0.87	0.22	100,100,100,100	0
56	MG	1A	4627	1/1	0.87	0.26	80,80,80,80	0
56	MG	1A	4017	1/1	0.87	0.14	69,69,69,69	0
56	MG	2q	203	1/1	0.87	0.11	151,151,151,151	0
56	MG	1A	4741	1/1	0.87	0.17	75,75,75,75	0
56	MG	2A	3124	1/1	0.87	0.06	125,125,125,125	0
56	MG	2A	3125	1/1	0.87	0.05	81,81,81,81	0
56	MG	2A	3315	1/1	0.87	0.16	90,90,90,90	0
56	MG	1A	4113	1/1	0.87	0.27	55,55,55,55	0
56	MG	2A	3318	1/1	0.87	0.26	83,83,83,83	0
56	MG	1A	4041	1/1	0.87	0.22	74,74,74,74	0
56	MG	1A	4875	1/1	0.87	0.09	71,71,71,71	0
56	MG	1a	1612	1/1	0.87	0.05	94,94,94,94	0
56	MG	1A	4122	1/1	0.87	0.22	66,66,66,66	0
56	MG	1A	4753	1/1	0.87	0.10	62,62,62,62	0
56	MG	1A	5033	1/1	0.87	0.26	68,68,68,68	0
56	MG	1A	4529	1/1	0.87	0.14	68,68,68,68	0
56	MG	2E	301	1/1	0.87	0.27	91,91,91,91	0
56	MG	2A	3330	1/1	0.87	0.35	97,97,97,97	0
56	MG	2A	3544	1/1	0.87	0.21	108,108,108,108	0
56	MG	2A	3779	1/1	0.87	0.23	98,98,98,98	0
56	MG	1A	4652	1/1	0.87	0.14	84,84,84,84	0
56	MG	1A	5041	1/1	0.87	0.19	79,79,79,79	0
56	MG	1A	5043	1/1	0.87	0.22	71,71,71,71	0
56	MG	2A	3046	1/1	0.87	0.16	91,91,91,91	0
56	MG	1A	4401	1/1	0.87	0.10	78,78,78,78	0
56	MG	1a	1696	1/1	0.87	0.08	159,159,159,159	0
56	MG	1A	4074	1/1	0.87	0.26	78,78,78,78	0
56	MG	1A	4357	1/1	0.87	0.31	78,78,78,78	0
56	MG	2A	3656	1/1	0.87	0.20	109,109,109,109	0
56	MG	1A	4018	1/1	0.87	0.23	68,68,68,68	0
56	MG	1A	4205	1/1	0.87	0.31	56,56,56,56	0
56	MG	1A	4477	1/1	0.87	0.24	71,71,71,71	0
56	MG	1A	4777	1/1	0.87	0.09	68,68,68,68	0
56	MG	1A	4663	1/1	0.87	0.14	89,89,89,89	0
56	MG	1A	4206	1/1	0.87	0.25	55,55,55,55	0
56	MG	1A	4273	1/1	0.87	0.19	69,69,69,69	0
56	MG	1A	4697	1/1	0.88	0.12	68,68,68,68	0
56	MG	1a	1842	1/1	0.88	0.13	78,78,78,78	0
56	MG	2A	3129	1/1	0.88	0.23	101,101,101,101	0
56	MG	1A	4699	1/1	0.88	0.20	75,75,75,75	0
56	MG	1A	4270	1/1	0.88	0.14	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3633	1/1	0.88	0.39	110,110,110,110	0
56	MG	1a	1701	1/1	0.88	0.07	153,153,153,153	0
56	MG	1A	4701	1/1	0.88	0.17	68,68,68,68	0
56	MG	1B	213	1/1	0.88	0.15	88,88,88,88	0
56	MG	1A	4398	1/1	0.88	0.27	75,75,75,75	0
56	MG	1b	306	1/1	0.88	0.09	186,186,186,186	0
56	MG	1b	307	1/1	0.88	0.07	164,164,164,164	0
56	MG	2A	3776	1/1	0.88	0.15	97,97,97,97	0
56	MG	2A	3777	1/1	0.88	0.24	100,100,100,100	0
56	MG	2A	3053	1/1	0.88	0.13	96,96,96,96	0
56	MG	1a	1705	1/1	0.88	0.21	122,122,122,122	0
56	MG	1A	4986	1/1	0.88	0.12	64,64,64,64	0
56	MG	2A	3238	1/1	0.88	0.28	108,108,108,108	0
56	MG	1A	4795	1/1	0.88	0.24	79,79,79,79	0
56	MG	1A	4706	1/1	0.88	0.23	68,68,68,68	0
56	MG	2A	3148	1/1	0.88	0.25	76,76,76,76	0
56	MG	1A	4298	1/1	0.88	0.13	76,76,76,76	0
56	MG	2a	1792	1/1	0.88	0.08	250,250,250,250	0
56	MG	2A	3444	1/1	0.88	0.11	99,99,99,99	0
56	MG	2S	201	1/1	0.88	0.10	87,87,87,87	0
56	MG	2A	3150	1/1	0.88	0.11	105,105,105,105	0
56	MG	2A	3790	1/1	0.88	0.15	96,96,96,96	0
56	MG	2b	302	1/1	0.88	0.08	196,196,196,196	0
56	MG	1A	5007	1/1	0.88	0.11	92,92,92,92	0
56	MG	2A	3448	1/1	0.88	0.25	78,78,78,78	0
56	MG	2A	3064	1/1	0.88	0.35	75,75,75,75	0
56	MG	1A	4509	1/1	0.88	0.19	62,62,62,62	0
56	MG	1A	4299	1/1	0.88	0.12	95,95,95,95	0
56	MG	1a	1784	1/1	0.88	0.08	124,124,124,124	0
56	MG	1D	303	1/1	0.88	0.08	82,82,82,82	0
56	MG	1A	4072	1/1	0.88	0.36	63,63,63,63	0
56	MG	1A	4329	1/1	0.88	0.24	73,73,73,73	0
56	MG	1D	308	1/1	0.88	0.11	77,77,77,77	0
56	MG	2A	3804	1/1	0.88	0.27	114,114,114,114	0
56	MG	1A	4653	1/1	0.88	0.13	88,88,88,88	0
56	MG	1A	5017	1/1	0.88	0.16	68,68,68,68	0
56	MG	1H	201	1/1	0.88	0.10	69,69,69,69	0
56	MG	24	101	1/1	0.88	0.04	73,73,73,73	0
56	MG	1A	4215	1/1	0.88	0.31	54,54,54,54	0
56	MG	2A	3569	1/1	0.88	0.08	96,96,96,96	0
56	MG	1A	4892	1/1	0.88	0.15	72,72,72,72	0
56	MG	1A	4725	1/1	0.88	0.08	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1Q	201	1/1	0.88	0.24	70,70,70,70	0
56	MG	1A	4097	1/1	0.88	0.26	57,57,57,57	0
56	MG	1A	4900	1/1	0.88	0.11	81,81,81,81	0
56	MG	2A	3685	1/1	0.88	0.20	109,109,109,109	0
56	MG	1A	5025	1/1	0.88	0.29	75,75,75,75	0
56	MG	2A	3088	1/1	0.88	0.16	72,72,72,72	0
56	MG	1A	4332	1/1	0.88	0.23	75,75,75,75	0
56	MG	1a	1877	1/1	0.88	0.07	106,106,106,106	0
56	MG	2a	1715	1/1	0.88	0.11	147,147,147,147	0
56	MG	2A	3824	1/1	0.88	0.10	99,99,99,99	0
56	MG	1A	4373	1/1	0.88	0.21	64,64,64,64	0
56	MG	2A	3691	1/1	0.88	0.04	165,165,165,165	0
56	MG	1Z	305	1/1	0.88	0.16	72,72,72,72	0
56	MG	2A	3375	1/1	0.88	0.19	103,103,103,103	0
56	MG	2A	3377	1/1	0.88	0.12	116,116,116,116	0
56	MG	2A	3378	1/1	0.88	0.12	106,106,106,106	0
56	MG	13	301	1/1	0.88	0.14	65,65,65,65	0
56	MG	2A	3273	1/1	0.88	0.22	70,70,70,70	0
56	MG	15	102	1/1	0.88	0.20	60,60,60,60	0
56	MG	2A	3701	1/1	0.88	0.18	93,93,93,93	0
56	MG	1A	4217	1/1	0.88	0.14	59,59,59,59	0
56	MG	1A	4337	1/1	0.88	0.21	59,59,59,59	0
56	MG	2A	3490	1/1	0.88	0.10	76,76,76,76	0
56	MG	1A	4218	1/1	0.88	0.16	58,58,58,58	0
56	MG	1A	4665	1/1	0.88	0.29	78,78,78,78	0
56	MG	1A	4922	1/1	0.88	0.20	67,67,67,67	0
56	MG	2A	3494	1/1	0.88	0.06	134,134,134,134	0
56	MG	2A	3846	1/1	0.88	0.18	108,108,108,108	0
56	MG	2a	1739	1/1	0.88	0.15	151,151,151,151	0
56	MG	1A	4065	1/1	0.88	0.28	67,67,67,67	0
56	MG	2A	3501	1/1	0.88	0.28	104,104,104,104	0
56	MG	1a	1674	1/1	0.88	0.11	134,134,134,134	0
56	MG	1a	1607	1/1	0.88	0.24	86,86,86,86	0
56	MG	1A	4605	1/1	0.88	0.11	64,64,64,64	0
56	MG	1A	4837	1/1	0.88	0.17	57,57,57,57	0
56	MG	2A	3727	1/1	0.88	0.25	90,90,90,90	0
56	MG	2x	101	1/1	0.88	0.05	62,62,62,62	0
56	MG	2A	3506	1/1	0.88	0.07	149,149,149,149	0
56	MG	2A	3734	1/1	0.88	0.19	108,108,108,108	0
56	MG	1A	4248	1/1	0.88	0.23	56,56,56,56	0
56	MG	1A	4839	1/1	0.88	0.24	63,63,63,63	0
56	MG	1a	1617	1/1	0.88	0.09	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4612	1/1	0.88	0.15	62,62,62,62	0
56	MG	1A	4676	1/1	0.88	0.11	101,101,101,101	0
56	MG	1A	4528	1/1	0.88	0.18	73,73,73,73	0
56	MG	1A	4284	1/1	0.88	0.19	65,65,65,65	0
56	MG	1A	4225	1/1	0.88	0.27	73,73,73,73	0
56	MG	1A	4252	1/1	0.88	0.25	54,54,54,54	0
56	MG	1A	4031	1/1	0.88	0.17	56,56,56,56	0
56	MG	2A	3120	1/1	0.88	0.16	120,120,120,120	0
56	MG	1A	4144	1/1	0.88	0.11	65,65,65,65	0
56	MG	1A	4866	1/1	0.88	0.15	69,69,69,69	0
56	MG	2A	3212	1/1	0.88	0.11	93,93,93,93	0
56	MG	1A	4691	1/1	0.88	0.14	81,81,81,81	0
56	MG	1A	4146	1/1	0.88	0.15	59,59,59,59	0
56	MG	2A	3527	1/1	0.88	0.13	111,111,111,111	0
56	MG	2a	1656	1/1	0.88	0.13	145,145,145,145	0
56	MG	1A	4229	1/1	0.88	0.16	111,111,111,111	0
56	MG	2A	3499	1/1	0.89	0.17	100,100,100,100	0
56	MG	1A	4436	1/1	0.89	0.22	64,64,64,64	0
56	MG	1A	4123	1/1	0.89	0.16	77,77,77,77	0
56	MG	2A	3260	1/1	0.89	0.40	78,78,78,78	0
56	MG	1A	4440	1/1	0.89	0.17	73,73,73,73	0
56	MG	1A	4261	1/1	0.89	0.15	63,63,63,63	0
56	MG	2A	3058	1/1	0.89	0.23	85,85,85,85	0
56	MG	1A	4263	1/1	0.89	0.38	51,51,51,51	0
56	MG	1A	4610	1/1	0.89	0.14	60,60,60,60	0
56	MG	2A	3267	1/1	0.89	0.18	99,99,99,99	0
56	MG	1B	221	1/1	0.89	0.24	98,98,98,98	0
56	MG	2A	3756	1/1	0.89	0.18	137,137,137,137	0
56	MG	1A	4705	1/1	0.89	0.10	72,72,72,72	0
56	MG	1A	4142	1/1	0.89	0.22	66,66,66,66	0
56	MG	1A	4710	1/1	0.89	0.22	73,73,73,73	0
56	MG	1A	4971	1/1	0.89	0.32	63,63,63,63	0
56	MG	1A	4616	1/1	0.89	0.14	86,86,86,86	0
56	MG	1A	4125	1/1	0.89	0.14	79,79,79,79	0
56	MG	1A	4174	1/1	0.89	0.29	59,59,59,59	0
56	MG	2A	3072	1/1	0.89	0.09	133,133,133,133	0
56	MG	1A	4145	1/1	0.89	0.31	51,51,51,51	0
56	MG	1A	4032	1/1	0.89	0.31	55,55,55,55	0
56	MG	1A	4182	1/1	0.89	0.18	58,58,58,58	0
56	MG	2A	3401	1/1	0.89	0.10	89,89,89,89	0
56	MG	1a	1668	1/1	0.89	0.07	139,139,139,139	0
56	MG	2F	304	1/1	0.89	0.10	135,135,135,135	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3636	1/1	0.89	0.10	125,125,125,125	0
56	MG	1A	4985	1/1	0.89	0.11	73,73,73,73	0
56	MG	1A	4395	1/1	0.89	0.11	63,63,63,63	0
56	MG	1A	4989	1/1	0.89	0.06	73,73,73,73	0
56	MG	1A	4089	1/1	0.89	0.14	67,67,67,67	0
56	MG	1A	4995	1/1	0.89	0.18	77,77,77,77	0
56	MG	1A	4997	1/1	0.89	0.15	80,80,80,80	0
56	MG	2A	3410	1/1	0.89	0.12	108,108,108,108	0
56	MG	1A	5004	1/1	0.89	0.18	89,89,89,89	0
56	MG	2A	3293	1/1	0.89	0.20	94,94,94,94	0
56	MG	2A	3786	1/1	0.89	0.06	123,123,123,123	0
56	MG	1a	1851	1/1	0.89	0.09	175,175,175,175	0
56	MG	1A	4399	1/1	0.89	0.15	77,77,77,77	0
56	MG	1A	4857	1/1	0.89	0.10	61,61,61,61	0
56	MG	1t	201	1/1	0.89	0.09	42,42,42,42	0
56	MG	1A	4150	1/1	0.89	0.16	59,59,59,59	0
56	MG	10	101	1/1	0.89	0.25	64,64,64,64	0
56	MG	1A	4728	1/1	0.89	0.27	76,76,76,76	0
56	MG	1A	4628	1/1	0.89	0.20	77,77,77,77	0
56	MG	1A	4629	1/1	0.89	0.09	71,71,71,71	0
56	MG	1A	5013	1/1	0.89	0.04	38,38,38,38	0
56	MG	1A	4631	1/1	0.89	0.10	70,70,70,70	0
56	MG	1A	4152	1/1	0.89	0.25	56,56,56,56	0
56	MG	1A	4045	1/1	0.89	0.21	68,68,68,68	0
56	MG	1a	1605	1/1	0.89	0.25	89,89,89,89	0
56	MG	2A	3672	1/1	0.89	0.09	120,120,120,120	0
56	MG	26	101	1/1	0.89	0.24	121,121,121,121	0
56	MG	1A	4738	1/1	0.89	0.24	70,70,70,70	0
56	MG	2A	3004	1/1	0.89	0.24	93,93,93,93	0
56	MG	2a	1708	1/1	0.89	0.11	152,152,152,152	0
56	MG	1A	4115	1/1	0.89	0.14	62,62,62,62	0
56	MG	1A	4405	1/1	0.89	0.11	71,71,71,71	0
56	MG	1A	4743	1/1	0.89	0.17	74,74,74,74	0
56	MG	1A	4745	1/1	0.89	0.10	81,81,81,81	0
56	MG	2A	3324	1/1	0.89	0.15	87,87,87,87	0
56	MG	1a	1613	1/1	0.89	0.19	91,91,91,91	0
56	MG	1A	4467	1/1	0.89	0.20	57,57,57,57	0
56	MG	1A	4116	1/1	0.89	0.15	65,65,65,65	0
56	MG	1a	1788	1/1	0.89	0.08	118,118,118,118	0
56	MG	1a	1790	1/1	0.89	0.21	87,87,87,87	0
56	MG	1A	4750	1/1	0.89	0.27	68,68,68,68	0
56	MG	1A	4479	1/1	0.89	0.20	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	5037	1/1	0.89	0.17	78,78,78,78	0
56	MG	2A	3223	1/1	0.89	0.16	118,118,118,118	0
56	MG	1A	4542	1/1	0.89	0.20	56,56,56,56	0
56	MG	2A	3226	1/1	0.89	0.18	100,100,100,100	0
56	MG	1A	4543	1/1	0.89	0.07	83,83,83,83	0
56	MG	2A	3340	1/1	0.89	0.36	75,75,75,75	0
56	MG	1A	4135	1/1	0.89	0.18	78,78,78,78	0
56	MG	2A	3229	1/1	0.89	0.28	73,73,73,73	0
56	MG	1A	4482	1/1	0.89	0.21	61,61,61,61	0
56	MG	1A	4483	1/1	0.89	0.15	66,66,66,66	0
56	MG	2A	3126	1/1	0.89	0.10	138,138,138,138	0
56	MG	1A	4419	1/1	0.89	0.26	55,55,55,55	0
56	MG	2A	3703	1/1	0.89	0.12	94,94,94,94	0
56	MG	2A	3839	1/1	0.89	0.17	139,139,139,139	0
56	MG	1A	4008	1/1	0.89	0.11	71,71,71,71	0
56	MG	2a	1864	1/1	0.89	0.08	161,161,161,161	0
56	MG	1A	4137	1/1	0.89	0.05	102,102,102,102	0
56	MG	1A	4207	1/1	0.89	0.26	52,52,52,52	0
56	MG	1A	4556	1/1	0.89	0.17	58,58,58,58	0
56	MG	1A	4492	1/1	0.89	0.34	69,69,69,69	0
56	MG	1A	4562	1/1	0.89	0.30	65,65,65,65	0
56	MG	1A	4209	1/1	0.89	0.28	55,55,55,55	0
56	MG	1A	4566	1/1	0.89	0.26	58,58,58,58	0
56	MG	1A	4678	1/1	0.89	0.13	86,86,86,86	0
56	MG	2a	1633	1/1	0.89	0.12	125,125,125,125	0
56	MG	2A	3720	1/1	0.89	0.10	122,122,122,122	0
56	MG	2A	3033	1/1	0.89	0.10	107,107,107,107	0
56	MG	1A	4679	1/1	0.89	0.04	80,80,80,80	0
56	MG	1A	4923	1/1	0.89	0.15	66,66,66,66	0
56	MG	1A	4924	1/1	0.89	0.08	71,71,71,71	0
56	MG	1A	4575	1/1	0.89	0.23	56,56,56,56	0
56	MG	1A	4580	1/1	0.89	0.28	64,64,64,64	0
56	MG	1A	4118	1/1	0.89	0.21	82,82,82,82	0
56	MG	1A	4255	1/1	0.89	0.20	65,65,65,65	0
56	MG	1A	4333	1/1	0.89	0.10	83,83,83,83	0
56	MG	2A	3049	1/1	0.89	0.10	94,94,94,94	0
56	MG	1A	4055	1/1	0.89	0.11	86,86,86,86	0
56	MG	1A	4504	1/1	0.89	0.17	92,92,92,92	0
56	MG	2A	3495	1/1	0.89	0.13	106,106,106,106	0
56	MG	1a	1626	1/1	0.90	0.20	98,98,98,98	0
56	MG	1A	4108	1/1	0.90	0.23	52,52,52,52	0
56	MG	2A	3153	1/1	0.90	0.14	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1753	1/1	0.90	0.16	115,115,115,115	0
56	MG	1A	4472	1/1	0.90	0.35	54,54,54,54	0
56	MG	27	101	1/1	0.90	0.13	90,90,90,90	0
56	MG	1A	4475	1/1	0.90	0.17	58,58,58,58	0
56	MG	28	102	1/1	0.90	0.16	119,119,119,119	0
56	MG	1A	4639	1/1	0.90	0.07	71,71,71,71	0
56	MG	1A	4568	1/1	0.90	0.14	56,56,56,56	0
56	MG	1a	1632	1/1	0.90	0.18	118,118,118,118	0
56	MG	1D	302	1/1	0.90	0.07	57,57,57,57	0
56	MG	1A	4009	1/1	0.90	0.15	79,79,79,79	0
56	MG	2a	1917	1/1	0.90	0.19	86,86,86,86	0
56	MG	2A	3007	1/1	0.90	0.19	98,98,98,98	0
56	MG	2A	3335	1/1	0.90	0.12	97,97,97,97	0
56	MG	1A	4129	1/1	0.90	0.21	58,58,58,58	0
56	MG	1A	4761	1/1	0.90	0.12	74,74,74,74	0
56	MG	1A	4437	1/1	0.90	0.16	64,64,64,64	0
56	MG	1A	4648	1/1	0.90	0.28	66,66,66,66	0
56	MG	2A	3838	1/1	0.90	0.05	44,44,44,44	0
56	MG	2A	3730	1/1	0.90	0.19	99,99,99,99	0
56	MG	1A	5027	1/1	0.90	0.13	63,63,63,63	0
56	MG	1a	1766	1/1	0.90	0.08	129,129,129,129	0
56	MG	1E	305	1/1	0.90	0.14	69,69,69,69	0
56	MG	1E	308	1/1	0.90	0.10	68,68,68,68	0
56	MG	2A	3437	1/1	0.90	0.14	97,97,97,97	0
56	MG	1A	4222	1/1	0.90	0.16	70,70,70,70	0
56	MG	1A	5034	1/1	0.90	0.10	67,67,67,67	0
56	MG	1A	4224	1/1	0.90	0.16	64,64,64,64	0
56	MG	1A	4771	1/1	0.90	0.14	70,70,70,70	0
56	MG	1P	203	1/1	0.90	0.28	68,68,68,68	0
56	MG	1a	1840	1/1	0.90	0.09	237,237,237,237	0
56	MG	1A	4708	1/1	0.90	0.14	70,70,70,70	0
56	MG	2A	3746	1/1	0.90	0.15	93,93,93,93	0
56	MG	2A	3104	1/1	0.90	0.09	53,53,53,53	0
56	MG	2A	3748	1/1	0.90	0.10	104,104,104,104	0
56	MG	2A	3542	1/1	0.90	0.16	110,110,110,110	0
56	MG	1A	4950	1/1	0.90	0.07	61,61,61,61	0
56	MG	1A	5042	1/1	0.90	0.09	77,77,77,77	0
56	MG	1A	4283	1/1	0.90	0.21	65,65,65,65	0
56	MG	2A	3638	1/1	0.90	0.14	114,114,114,114	0
56	MG	1A	4253	1/1	0.90	0.42	54,54,54,54	0
56	MG	1A	4444	1/1	0.90	0.31	76,76,76,76	0
56	MG	1A	4181	1/1	0.90	0.38	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3549	1/1	0.90	0.28	96,96,96,96	0
56	MG	1A	4719	1/1	0.90	0.10	89,89,89,89	0
56	MG	10	104	1/1	0.90	0.11	79,79,79,79	0
56	MG	1A	4094	1/1	0.90	0.21	68,68,68,68	0
56	MG	1A	4788	1/1	0.90	0.14	107,107,107,107	0
56	MG	1A	4493	1/1	0.90	0.17	68,68,68,68	0
56	MG	2A	3767	1/1	0.90	0.12	93,93,93,93	0
56	MG	1b	304	1/1	0.90	0.09	173,173,173,173	0
56	MG	2A	3467	1/1	0.90	0.05	79,79,79,79	0
56	MG	2A	3652	1/1	0.90	0.08	124,124,124,124	0
56	MG	2A	3654	1/1	0.90	0.16	115,115,115,115	0
56	MG	2A	3468	1/1	0.90	0.23	85,85,85,85	0
56	MG	1A	4791	1/1	0.90	0.22	73,73,73,73	0
56	MG	1a	1791	1/1	0.90	0.08	116,116,116,116	0
56	MG	2A	3560	1/1	0.90	0.38	95,95,95,95	0
56	MG	2A	3374	1/1	0.90	0.14	102,102,102,102	0
56	MG	1A	4184	1/1	0.90	0.12	61,61,61,61	0
56	MG	2A	3663	1/1	0.90	0.12	95,95,95,95	0
56	MG	1A	4411	1/1	0.90	0.38	50,50,50,50	0
56	MG	2A	3565	1/1	0.90	0.22	102,102,102,102	0
56	MG	1A	4541	1/1	0.90	0.24	56,56,56,56	0
56	MG	1A	4500	1/1	0.90	0.27	69,69,69,69	0
56	MG	1A	4208	1/1	0.90	0.21	56,56,56,56	0
56	MG	2A	3048	1/1	0.90	0.13	88,88,88,88	0
56	MG	1A	4073	1/1	0.90	0.13	71,71,71,71	0
56	MG	2A	3290	1/1	0.90	0.12	112,112,112,112	0
56	MG	1A	4673	1/1	0.90	0.13	94,94,94,94	0
56	MG	1A	4987	1/1	0.90	0.18	62,62,62,62	0
56	MG	1A	4807	1/1	0.90	0.14	58,58,58,58	0
56	MG	2A	3054	1/1	0.90	0.17	100,100,100,100	0
56	MG	1A	4422	1/1	0.90	0.30	52,52,52,52	0
56	MG	1A	4732	1/1	0.90	0.20	56,56,56,56	0
56	MG	1A	4424	1/1	0.90	0.18	61,61,61,61	0
56	MG	2Q	204	1/1	0.90	0.06	118,118,118,118	0
56	MG	2a	1772	1/1	0.90	0.05	70,70,70,70	0
56	MG	2A	3218	1/1	0.90	0.20	103,103,103,103	0
56	MG	1A	4999	1/1	0.90	0.08	62,62,62,62	0
56	MG	1A	4105	1/1	0.90	0.46	46,46,46,46	0
56	MG	1a	1869	1/1	0.90	0.05	226,226,226,226	0
56	MG	1s	101	1/1	0.90	0.13	216,216,216,216	0
56	MG	2A	3224	1/1	0.90	0.10	119,119,119,119	0
56	MG	2A	3497	1/1	0.90	0.23	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3140	1/1	0.90	0.15	101,101,101,101	0
56	MG	1A	4818	1/1	0.90	0.25	69,69,69,69	0
56	MG	1A	4268	1/1	0.90	0.31	65,65,65,65	0
56	MG	1A	4232	1/1	0.90	0.25	64,64,64,64	0
56	MG	2A	3313	1/1	0.90	0.13	95,95,95,95	0
56	MG	1A	4194	1/1	0.90	0.18	68,68,68,68	0
56	MG	1A	4143	1/1	0.90	0.20	62,62,62,62	0
56	MG	1A	4091	1/1	0.90	0.21	58,58,58,58	0
56	MG	1a	1879	1/1	0.90	0.08	97,97,97,97	0
56	MG	1A	4512	1/1	0.91	0.12	73,73,73,73	0
56	MG	2a	1880	1/1	0.91	0.11	158,158,158,158	0
56	MG	1A	4551	1/1	0.91	0.10	69,69,69,69	0
56	MG	1A	5031	1/1	0.91	0.07	88,88,88,88	0
56	MG	2A	3712	1/1	0.91	0.31	92,92,92,92	0
56	MG	2A	3158	1/1	0.91	0.10	107,107,107,107	0
56	MG	2A	3714	1/1	0.91	0.23	101,101,101,101	0
56	MG	15	101	1/1	0.91	0.24	61,61,61,61	0
56	MG	1A	4406	1/1	0.91	0.10	56,56,56,56	0
56	MG	16	101	1/1	0.91	0.24	72,72,72,72	0
56	MG	1A	4685	1/1	0.91	0.06	70,70,70,70	0
56	MG	1A	4919	1/1	0.91	0.14	62,62,62,62	0
56	MG	2a	1891	1/1	0.91	0.07	157,157,157,157	0
56	MG	1A	4258	1/1	0.91	0.10	68,68,68,68	0
56	MG	1A	4214	1/1	0.91	0.15	61,61,61,61	0
56	MG	2A	3852	1/1	0.91	0.15	96,96,96,96	0
56	MG	2A	3853	1/1	0.91	0.04	84,84,84,84	0
56	MG	1A	4557	1/1	0.91	0.20	58,58,58,58	0
56	MG	2A	3723	1/1	0.91	0.21	96,96,96,96	0
56	MG	2A	3376	1/1	0.91	0.19	99,99,99,99	0
56	MG	1a	1683	1/1	0.91	0.08	83,83,83,83	0
56	MG	1m	202	1/1	0.91	0.09	211,211,211,211	0
56	MG	2A	3728	1/1	0.91	0.13	83,83,83,83	0
56	MG	1A	4415	1/1	0.91	0.17	74,74,74,74	0
56	MG	2A	3731	1/1	0.91	0.23	86,86,86,86	0
56	MG	1A	4748	1/1	0.91	0.13	90,90,90,90	0
56	MG	2A	3733	1/1	0.91	0.08	77,77,77,77	0
56	MG	1A	4517	1/1	0.91	0.17	81,81,81,81	0
56	MG	1p	101	1/1	0.91	0.09	143,143,143,143	0
56	MG	1a	1609	1/1	0.91	0.23	88,88,88,88	0
56	MG	2A	3275	1/1	0.91	0.19	83,83,83,83	0
56	MG	1A	4387	1/1	0.91	0.14	81,81,81,81	0
56	MG	2A	3082	1/1	0.91	0.13	126,126,126,126	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4754	1/1	0.91	0.17	62,62,62,62	0
56	MG	1A	4175	1/1	0.91	0.20	60,60,60,60	0
56	MG	2A	3085	1/1	0.91	0.05	118,118,118,118	0
56	MG	1A	4487	1/1	0.91	0.22	75,75,75,75	0
56	MG	1A	4840	1/1	0.91	0.14	71,71,71,71	0
56	MG	1A	4938	1/1	0.91	0.10	69,69,69,69	0
56	MG	2A	3394	1/1	0.91	0.10	131,131,131,131	0
56	MG	1A	4941	1/1	0.91	0.21	61,61,61,61	0
56	MG	2A	3513	1/1	0.91	0.10	85,85,85,85	0
56	MG	1A	4573	1/1	0.91	0.10	70,70,70,70	0
56	MG	1A	4183	1/1	0.91	0.15	63,63,63,63	0
56	MG	2A	3193	1/1	0.91	0.29	107,107,107,107	0
56	MG	2A	3092	1/1	0.91	0.10	118,118,118,118	0
56	MG	1A	4955	1/1	0.91	0.26	72,72,72,72	0
56	MG	1A	4423	1/1	0.91	0.17	53,53,53,53	0
56	MG	2A	3757	1/1	0.91	0.13	127,127,127,127	0
56	MG	1A	4704	1/1	0.91	0.16	77,77,77,77	0
56	MG	1A	4491	1/1	0.91	0.17	86,86,86,86	0
56	MG	1A	4850	1/1	0.91	0.23	76,76,76,76	0
56	MG	1A	4854	1/1	0.91	0.13	81,81,81,81	0
56	MG	1A	4165	1/1	0.91	0.05	56,56,56,56	0
56	MG	2E	305	1/1	0.91	0.12	121,121,121,121	0
56	MG	1A	4968	1/1	0.91	0.12	82,82,82,82	0
56	MG	1A	4585	1/1	0.91	0.31	65,65,65,65	0
56	MG	1A	4773	1/1	0.91	0.12	68,68,68,68	0
56	MG	2A	3103	1/1	0.91	0.04	79,79,79,79	0
56	MG	1A	4774	1/1	0.91	0.17	68,68,68,68	0
56	MG	1A	4864	1/1	0.91	0.19	75,75,75,75	0
56	MG	1a	1633	1/1	0.91	0.14	109,109,109,109	0
56	MG	1a	1882	1/1	0.91	0.25	87,87,87,87	0
56	MG	1A	4281	1/1	0.91	0.21	70,70,70,70	0
56	MG	2A	3311	1/1	0.91	0.07	102,102,102,102	0
56	MG	1A	4319	1/1	0.91	0.33	68,68,68,68	0
56	MG	1a	1886	1/1	0.91	0.12	125,125,125,125	0
56	MG	2Q	205	1/1	0.91	0.15	129,129,129,129	0
56	MG	1a	1888	1/1	0.91	0.11	119,119,119,119	0
56	MG	1A	4179	1/1	0.91	0.19	60,60,60,60	0
56	MG	1A	4983	1/1	0.91	0.17	56,56,56,56	0
56	MG	1A	4870	1/1	0.91	0.36	54,54,54,54	0
56	MG	1A	4595	1/1	0.91	0.10	62,62,62,62	0
56	MG	2A	3429	1/1	0.91	0.13	117,117,117,117	0
56	MG	2A	3430	1/1	0.91	0.35	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1B	219	1/1	0.91	0.11	77,77,77,77	0
56	MG	2A	3323	1/1	0.91	0.29	89,89,89,89	0
56	MG	2a	1701	1/1	0.91	0.12	146,146,146,146	0
56	MG	1A	4219	1/1	0.91	0.23	61,61,61,61	0
56	MG	1A	4876	1/1	0.91	0.10	80,80,80,80	0
56	MG	1A	4781	1/1	0.91	0.06	81,81,81,81	0
56	MG	1A	4990	1/1	0.91	0.16	64,64,64,64	0
56	MG	2A	3328	1/1	0.91	0.11	91,91,91,91	0
56	MG	2A	3667	1/1	0.91	0.20	93,93,93,93	0
56	MG	1A	4992	1/1	0.91	0.09	70,70,70,70	0
56	MG	2A	3669	1/1	0.91	0.15	92,92,92,92	0
56	MG	1A	4784	1/1	0.91	0.18	87,87,87,87	0
56	MG	1A	4103	1/1	0.91	0.27	50,50,50,50	0
56	MG	1A	4212	1/1	0.91	0.29	51,51,51,51	0
56	MG	1A	4602	1/1	0.91	0.07	54,54,54,54	0
56	MG	1A	5003	1/1	0.91	0.20	65,65,65,65	0
56	MG	1a	1904	1/1	0.91	0.09	83,83,83,83	0
56	MG	1A	4400	1/1	0.91	0.17	75,75,75,75	0
56	MG	28	103	1/1	0.91	0.11	115,115,115,115	0
56	MG	2a	1849	1/1	0.91	0.06	142,142,142,142	0
56	MG	1A	4272	1/1	0.91	0.16	68,68,68,68	0
56	MG	1A	4609	1/1	0.91	0.13	70,70,70,70	0
56	MG	2A	3454	1/1	0.91	0.09	90,90,90,90	0
56	MG	1A	4289	1/1	0.91	0.14	68,68,68,68	0
56	MG	2A	3458	1/1	0.91	0.22	90,90,90,90	0
56	MG	2A	3037	1/1	0.91	0.04	104,104,104,104	0
56	MG	1F	301	1/1	0.91	0.20	76,76,76,76	0
56	MG	1A	4545	1/1	0.91	0.22	65,65,65,65	0
56	MG	1A	4799	1/1	0.91	0.24	87,87,87,87	0
56	MG	1A	4671	1/1	0.91	0.17	65,65,65,65	0
56	MG	1A	4803	1/1	0.91	0.06	101,101,101,101	0
56	MG	2y	102	1/1	0.91	0.20	73,73,73,73	0
56	MG	1A	4469	1/1	0.91	0.20	56,56,56,56	0
56	MG	2A	3822	1/1	0.91	0.09	91,91,91,91	0
56	MG	1A	4805	1/1	0.91	0.12	95,95,95,95	0
56	MG	1A	4380	1/1	0.91	0.12	56,56,56,56	0
56	MG	2A	3353	1/1	0.91	0.17	83,83,83,83	0
56	MG	1A	4899	1/1	0.91	0.23	68,68,68,68	0
56	MG	1a	1665	1/1	0.91	0.50	132,132,132,132	0
56	MG	1A	4381	1/1	0.91	0.11	72,72,72,72	0
56	MG	1A	4121	1/1	0.91	0.18	81,81,81,81	0
56	MG	1A	4736	1/1	0.91	0.19	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1Z	304	1/1	0.91	0.10	64,64,64,64	0
56	MG	2A	3702	1/1	0.91	0.18	92,92,92,92	0
56	MG	1A	4905	1/1	0.91	0.15	65,65,65,65	0
56	MG	1A	4003	1/1	0.92	0.20	53,53,53,53	0
56	MG	1A	4904	1/1	0.92	0.32	63,63,63,63	0
56	MG	1A	4071	1/1	0.92	0.23	77,77,77,77	0
56	MG	1A	4473	1/1	0.92	0.30	46,46,46,46	0
56	MG	1A	5011	1/1	0.92	0.15	77,77,77,77	0
56	MG	1A	4910	1/1	0.92	0.31	55,55,55,55	0
56	MG	1A	4824	1/1	0.92	0.09	81,81,81,81	0
56	MG	20	102	1/1	0.92	0.23	116,116,116,116	0
56	MG	1A	4601	1/1	0.92	0.05	102,102,102,102	0
56	MG	2A	3711	1/1	0.92	0.14	95,95,95,95	0
56	MG	1A	4913	1/1	0.92	0.12	72,72,72,72	0
56	MG	1A	5016	1/1	0.92	0.18	81,81,81,81	0
56	MG	1P	202	1/1	0.92	0.11	60,60,60,60	0
56	MG	1a	1741	1/1	0.92	0.07	139,139,139,139	0
56	MG	1A	4369	1/1	0.92	0.37	61,61,61,61	0
56	MG	1A	4916	1/1	0.92	0.18	73,73,73,73	0
56	MG	2a	1914	1/1	0.92	0.07	242,242,242,242	0
56	MG	1R	201	1/1	0.92	0.30	68,68,68,68	0
56	MG	1A	4324	1/1	0.92	0.25	78,78,78,78	0
56	MG	1A	4920	1/1	0.92	0.19	61,61,61,61	0
56	MG	1A	4478	1/1	0.92	0.19	71,71,71,71	0
56	MG	1U	201	1/1	0.92	0.08	61,61,61,61	0
56	MG	1A	4064	1/1	0.92	0.12	69,69,69,69	0
56	MG	1A	4752	1/1	0.92	0.22	63,63,63,63	0
56	MG	2A	3222	1/1	0.92	0.09	112,112,112,112	0
56	MG	2A	3726	1/1	0.92	0.11	91,91,91,91	0
56	MG	1A	4925	1/1	0.92	0.07	72,72,72,72	0
56	MG	1a	1834	1/1	0.92	0.10	210,210,210,210	0
56	MG	1A	5030	1/1	0.92	0.20	72,72,72,72	0
56	MG	2A	3837	1/1	0.92	0.10	68,68,68,68	0
56	MG	1A	4328	1/1	0.92	0.32	55,55,55,55	0
56	MG	10	102	1/1	0.92	0.08	69,69,69,69	0
56	MG	1A	4233	1/1	0.92	0.22	65,65,65,65	0
56	MG	12	101	1/1	0.92	0.04	84,84,84,84	0
56	MG	1A	4688	1/1	0.92	0.11	65,65,65,65	0
56	MG	1A	4177	1/1	0.92	0.16	58,58,58,58	0
56	MG	1A	4081	1/1	0.92	0.16	57,57,57,57	0
56	MG	1A	4240	1/1	0.92	0.17	60,60,60,60	0
56	MG	17	103	1/1	0.92	0.22	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1b	308	1/1	0.92	0.09	162,162,162,162	0
56	MG	2A	3237	1/1	0.92	0.13	112,112,112,112	0
56	MG	2a	1720	1/1	0.92	0.08	153,153,153,153	0
56	MG	1A	4763	1/1	0.92	0.31	69,69,69,69	0
56	MG	1A	4693	1/1	0.92	0.20	67,67,67,67	0
56	MG	1A	4241	1/1	0.92	0.25	66,66,66,66	0
56	MG	2a	1619	1/1	0.92	0.05	68,68,68,68	0
56	MG	2a	1836	1/1	0.92	0.08	124,124,124,124	0
56	MG	1d	303	1/1	0.92	0.05	151,151,151,151	0
56	MG	1A	4334	1/1	0.92	0.08	73,73,73,73	0
56	MG	1A	4943	1/1	0.92	0.13	61,61,61,61	0
56	MG	2A	3063	1/1	0.92	0.32	83,83,83,83	0
56	MG	1A	4162	1/1	0.92	0.22	56,56,56,56	0
56	MG	2A	3447	1/1	0.92	0.13	87,87,87,87	0
56	MG	1A	4858	1/1	0.92	0.14	58,58,58,58	0
56	MG	1A	4434	1/1	0.92	0.28	58,58,58,58	0
56	MG	2A	3156	1/1	0.92	0.06	100,100,100,100	0
56	MG	1A	4119	1/1	0.92	0.23	74,74,74,74	0
56	MG	1A	4957	1/1	0.92	0.06	79,79,79,79	0
56	MG	1A	4047	1/1	0.92	0.16	69,69,69,69	0
56	MG	2A	3456	1/1	0.92	0.10	83,83,83,83	0
56	MG	1A	4342	1/1	0.92	0.22	65,65,65,65	0
56	MG	1A	4961	1/1	0.92	0.08	100,100,100,100	0
56	MG	1A	4303	1/1	0.92	0.15	87,87,87,87	0
56	MG	1a	1616	1/1	0.92	0.12	99,99,99,99	0
56	MG	1A	4274	1/1	0.92	0.35	51,51,51,51	0
56	MG	1A	4346	1/1	0.92	0.11	72,72,72,72	0
56	MG	1A	4247	1/1	0.92	0.26	49,49,49,49	0
56	MG	2q	204	1/1	0.92	0.09	141,141,141,141	0
56	MG	2r	301	1/1	0.92	0.07	139,139,139,139	0
56	MG	1A	4637	1/1	0.92	0.07	68,68,68,68	0
56	MG	1A	4349	1/1	0.92	0.20	54,54,54,54	0
56	MG	1A	4042	1/1	0.92	0.19	58,58,58,58	0
56	MG	1A	4277	1/1	0.92	0.23	53,53,53,53	0
56	MG	1v	702	1/1	0.92	0.31	91,91,91,91	0
56	MG	2A	3670	1/1	0.92	0.07	92,92,92,92	0
56	MG	1A	4717	1/1	0.92	0.11	81,81,81,81	0
56	MG	1A	4354	1/1	0.92	0.21	62,62,62,62	0
56	MG	1A	4249	1/1	0.92	0.22	52,52,52,52	0
56	MG	1A	4250	1/1	0.92	0.10	64,64,64,64	0
56	MG	1A	4453	1/1	0.92	0.15	66,66,66,66	0
56	MG	1A	4085	1/1	0.92	0.06	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4578	1/1	0.92	0.11	59,59,59,59	0
56	MG	1A	4579	1/1	0.92	0.23	56,56,56,56	0
56	MG	2A	3274	1/1	0.92	0.14	83,83,83,83	0
56	MG	2E	304	1/1	0.92	0.04	71,71,71,71	0
56	MG	1a	1797	1/1	0.92	0.33	85,85,85,85	0
56	MG	1A	4988	1/1	0.92	0.05	79,79,79,79	0
56	MG	1A	4086	1/1	0.92	0.10	68,68,68,68	0
56	MG	1A	4061	1/1	0.92	0.20	71,71,71,71	0
56	MG	1A	4189	1/1	0.92	0.16	60,60,60,60	0
56	MG	2A	3191	1/1	0.92	0.15	92,92,92,92	0
56	MG	2A	3192	1/1	0.92	0.16	99,99,99,99	0
56	MG	1A	4363	1/1	0.92	0.23	72,72,72,72	0
56	MG	1A	4191	1/1	0.92	0.16	67,67,67,67	0
56	MG	1A	4257	1/1	0.92	0.17	64,64,64,64	0
56	MG	1A	4998	1/1	0.92	0.11	80,80,80,80	0
56	MG	2A	3799	1/1	0.92	0.10	116,116,116,116	0
56	MG	2A	3286	1/1	0.92	0.15	101,101,101,101	0
56	MG	1A	4413	1/1	0.92	0.14	63,63,63,63	0
56	MG	1A	4593	1/1	0.92	0.28	65,65,65,65	0
56	MG	2A	3803	1/1	0.92	0.07	112,112,112,112	0
56	MG	2A	3696	1/1	0.92	0.16	105,105,105,105	0
57	ZN	2n	501	1/1	0.92	0.06	239,239,239,239	0
56	MG	1A	4594	1/1	0.92	0.17	64,64,64,64	0
56	MG	1A	4287	1/1	0.92	0.42	50,50,50,50	0
56	MG	1a	1706	1/1	0.93	0.09	103,103,103,103	0
56	MG	2A	3788	1/1	0.93	0.06	124,124,124,124	0
56	MG	1A	4336	1/1	0.93	0.27	62,62,62,62	0
56	MG	1A	4623	1/1	0.93	0.20	85,85,85,85	0
56	MG	1A	4894	1/1	0.93	0.14	63,63,63,63	0
56	MG	2P	202	1/1	0.93	0.12	127,127,127,127	0
56	MG	1A	4564	1/1	0.93	0.12	56,56,56,56	0
56	MG	1A	4565	1/1	0.93	0.20	58,58,58,58	0
56	MG	1A	4898	1/1	0.93	0.17	60,60,60,60	0
56	MG	1A	4418	1/1	0.93	0.23	52,52,52,52	0
56	MG	1A	4002	1/1	0.93	0.14	65,65,65,65	0
56	MG	1A	4569	1/1	0.93	0.22	60,60,60,60	0
56	MG	1A	4694	1/1	0.93	0.14	70,70,70,70	0
56	MG	1A	4450	1/1	0.93	0.16	75,75,75,75	0
56	MG	1A	4007	1/1	0.93	0.09	64,64,64,64	0
56	MG	1A	4907	1/1	0.93	0.20	52,52,52,52	0
56	MG	1A	4577	1/1	0.93	0.12	58,58,58,58	0
56	MG	2X	201	1/1	0.93	0.10	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4909	1/1	0.93	0.16	59,59,59,59	0
56	MG	1A	4634	1/1	0.93	0.10	59,59,59,59	0
56	MG	1A	4635	1/1	0.93	0.26	68,68,68,68	0
56	MG	1a	1813	1/1	0.93	0.06	91,91,91,91	0
56	MG	1A	4046	1/1	0.93	0.16	68,68,68,68	0
56	MG	2A	3289	1/1	0.93	0.18	107,107,107,107	0
56	MG	1A	4160	1/1	0.93	0.28	50,50,50,50	0
56	MG	1E	303	1/1	0.93	0.23	62,62,62,62	0
56	MG	1A	4132	1/1	0.93	0.19	61,61,61,61	0
56	MG	2A	3704	1/1	0.93	0.30	95,95,95,95	0
56	MG	2A	3705	1/1	0.93	0.28	98,98,98,98	0
56	MG	1A	4067	1/1	0.93	0.16	86,86,86,86	0
56	MG	1A	4532	1/1	0.93	0.06	45,45,45,45	0
56	MG	2A	3297	1/1	0.93	0.33	80,80,80,80	0
56	MG	1A	4645	1/1	0.93	0.16	66,66,66,66	0
56	MG	1A	4846	1/1	0.93	0.14	74,74,74,74	0
56	MG	1A	4456	1/1	0.93	0.11	80,80,80,80	0
56	MG	1A	4457	1/1	0.93	0.06	81,81,81,81	0
56	MG	27	102	1/1	0.93	0.21	89,89,89,89	0
56	MG	1P	201	1/1	0.93	0.12	53,53,53,53	0
56	MG	1A	4496	1/1	0.93	0.07	60,60,60,60	0
56	MG	1A	4851	1/1	0.93	0.08	72,72,72,72	0
56	MG	1A	5018	1/1	0.93	0.12	71,71,71,71	0
56	MG	1A	4852	1/1	0.93	0.20	71,71,71,71	0
56	MG	1A	4397	1/1	0.93	0.14	72,72,72,72	0
56	MG	2a	1818	1/1	0.93	0.11	156,156,156,156	0
56	MG	1A	4262	1/1	0.93	0.21	66,66,66,66	0
56	MG	2a	1820	1/1	0.93	0.11	155,155,155,155	0
56	MG	2h	202	1/1	0.93	0.07	180,180,180,180	0
56	MG	1A	4461	1/1	0.93	0.21	78,78,78,78	0
56	MG	2a	1601	1/1	0.93	0.07	122,122,122,122	0
56	MG	2A	3409	1/1	0.93	0.09	116,116,116,116	0
56	MG	1A	4860	1/1	0.93	0.05	59,59,59,59	0
56	MG	2a	1825	1/1	0.93	0.09	169,169,169,169	0
56	MG	2A	3039	1/1	0.93	0.06	80,80,80,80	0
56	MG	1A	4658	1/1	0.93	0.09	96,96,96,96	0
56	MG	2A	3413	1/1	0.93	0.09	126,126,126,126	0
56	MG	2A	3041	1/1	0.93	0.06	117,117,117,117	0
56	MG	1A	5026	1/1	0.93	0.14	70,70,70,70	0
56	MG	1A	4782	1/1	0.93	0.10	81,81,81,81	0
56	MG	1A	4090	1/1	0.93	0.17	55,55,55,55	0
56	MG	2A	3045	1/1	0.93	0.10	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4940	1/1	0.93	0.20	55,55,55,55	0
56	MG	2A	3322	1/1	0.93	0.12	88,88,88,88	0
56	MG	1A	4100	1/1	0.93	0.15	66,66,66,66	0
56	MG	2a	1725	1/1	0.93	0.10	142,142,142,142	0
56	MG	1A	4942	1/1	0.93	0.07	79,79,79,79	0
56	MG	1A	4865	1/1	0.93	0.09	64,64,64,64	0
56	MG	1A	4946	1/1	0.93	0.03	52,52,52,52	0
56	MG	1A	4786	1/1	0.93	0.13	63,63,63,63	0
56	MG	1A	5038	1/1	0.93	0.27	70,70,70,70	0
56	MG	2A	3144	1/1	0.93	0.07	65,65,65,65	0
56	MG	1a	1675	1/1	0.93	0.06	124,124,124,124	0
56	MG	1A	4949	1/1	0.93	0.07	69,69,69,69	0
56	MG	1A	4787	1/1	0.93	0.24	64,64,64,64	0
56	MG	1A	4951	1/1	0.93	0.19	68,68,68,68	0
56	MG	1A	4953	1/1	0.93	0.22	60,60,60,60	0
56	MG	1A	4954	1/1	0.93	0.14	62,62,62,62	0
56	MG	2A	3336	1/1	0.93	0.26	95,95,95,95	0
56	MG	1A	4148	1/1	0.93	0.17	64,64,64,64	0
56	MG	2A	3441	1/1	0.93	0.16	109,109,109,109	0
56	MG	1A	4376	1/1	0.93	0.29	61,61,61,61	0
56	MG	1A	4149	1/1	0.93	0.26	59,59,59,59	0
56	MG	1A	4958	1/1	0.93	0.11	95,95,95,95	0
56	MG	2A	3650	1/1	0.93	0.06	115,115,115,115	0
56	MG	2A	3651	1/1	0.93	0.05	118,118,118,118	0
56	MG	1A	4355	1/1	0.93	0.09	67,67,67,67	0
56	MG	1A	4604	1/1	0.93	0.12	67,67,67,67	0
56	MG	2A	3344	1/1	0.93	0.09	91,91,91,91	0
56	MG	1A	4062	1/1	0.93	0.24	72,72,72,72	0
56	MG	2A	3657	1/1	0.93	0.09	103,103,103,103	0
56	MG	1A	4169	1/1	0.93	0.17	57,57,57,57	0
56	MG	2A	3070	1/1	0.93	0.10	156,156,156,156	0
56	MG	1A	4964	1/1	0.93	0.08	67,67,67,67	0
56	MG	1A	4474	1/1	0.93	0.19	56,56,56,56	0
56	MG	2A	3453	1/1	0.93	0.06	74,74,74,74	0
56	MG	2A	3771	1/1	0.93	0.14	101,101,101,101	0
56	MG	2A	3163	1/1	0.93	0.11	103,103,103,103	0
56	MG	1A	5063	1/1	0.93	0.05	58,58,58,58	0
56	MG	1A	4190	1/1	0.93	0.16	68,68,68,68	0
56	MG	1B	202	1/1	0.93	0.05	114,114,114,114	0
56	MG	1A	4102	1/1	0.93	0.13	53,53,53,53	0
56	MG	2D	303	1/1	0.93	0.05	109,109,109,109	0
56	MG	1A	4313	1/1	0.93	0.20	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4558	1/1	0.93	0.13	66,66,66,66	0
56	MG	1A	4414	1/1	0.93	0.36	66,66,66,66	0
56	MG	1a	1785	1/1	0.93	0.07	136,136,136,136	0
56	MG	1A	4561	1/1	0.93	0.10	57,57,57,57	0
56	MG	1A	4620	1/1	0.93	0.08	107,107,107,107	0
57	ZN	24	102	1/1	0.93	0.09	230,230,230,230	0
56	MG	1A	4811	1/1	0.93	0.10	63,63,63,63	0
56	MG	1A	4056	1/1	0.93	0.18	66,66,66,66	0
56	MG	1A	4982	1/1	0.93	0.17	54,54,54,54	0
56	MG	1A	4296	1/1	0.94	0.21	82,82,82,82	0
56	MG	1A	5002	1/1	0.94	0.09	61,61,61,61	0
56	MG	2A	3843	1/1	0.94	0.08	76,76,76,76	0
56	MG	1B	226	1/1	0.94	0.15	64,64,64,64	0
56	MG	1D	301	1/1	0.94	0.18	65,65,65,65	0
56	MG	2A	3166	1/1	0.94	0.10	85,85,85,85	0
56	MG	2A	3848	1/1	0.94	0.05	61,61,61,61	0
56	MG	2A	3489	1/1	0.94	0.04	53,53,53,53	0
56	MG	2A	3167	1/1	0.94	0.15	99,99,99,99	0
56	MG	1A	4494	1/1	0.94	0.08	78,78,78,78	0
56	MG	1A	4829	1/1	0.94	0.13	74,74,74,74	0
56	MG	1A	4608	1/1	0.94	0.20	70,70,70,70	0
56	MG	1D	306	1/1	0.94	0.13	69,69,69,69	0
56	MG	1A	4153	1/1	0.94	0.13	55,55,55,55	0
56	MG	1A	4379	1/1	0.94	0.04	95,95,95,95	0
56	MG	1A	4187	1/1	0.94	0.11	67,67,67,67	0
56	MG	1A	4917	1/1	0.94	0.22	62,62,62,62	0
56	MG	1A	4835	1/1	0.94	0.16	63,63,63,63	0
56	MG	1E	304	1/1	0.94	0.12	71,71,71,71	0
56	MG	1A	4499	1/1	0.94	0.08	59,59,59,59	0
56	MG	2B	210	1/1	0.94	0.03	70,70,70,70	0
56	MG	1A	4749	1/1	0.94	0.13	77,77,77,77	0
56	MG	2A	3621	1/1	0.94	0.27	95,95,95,95	0
56	MG	1A	4120	1/1	0.94	0.24	79,79,79,79	0
56	MG	1A	4170	1/1	0.94	0.17	61,61,61,61	0
56	MG	1A	4683	1/1	0.94	0.10	55,55,55,55	0
56	MG	1O	203	1/1	0.94	0.28	87,87,87,87	0
56	MG	1A	4326	1/1	0.94	0.19	67,67,67,67	0
56	MG	1A	4385	1/1	0.94	0.40	55,55,55,55	0
56	MG	1A	4459	1/1	0.94	0.14	72,72,72,72	0
56	MG	2A	3629	1/1	0.94	0.27	114,114,114,114	0
56	MG	2A	3630	1/1	0.94	0.06	102,102,102,102	0
56	MG	2A	3189	1/1	0.94	0.13	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4759	1/1	0.94	0.14	74,74,74,74	0
56	MG	2a	1655	1/1	0.94	0.07	142,142,142,142	0
56	MG	1A	4068	1/1	0.94	0.30	84,84,84,84	0
56	MG	1P	204	1/1	0.94	0.08	88,88,88,88	0
56	MG	2B	226	1/1	0.94	0.08	132,132,132,132	0
56	MG	1A	4559	1/1	0.94	0.24	60,60,60,60	0
56	MG	1A	4157	1/1	0.94	0.24	52,52,52,52	0
56	MG	2A	3295	1/1	0.94	0.10	97,97,97,97	0
56	MG	1R	203	1/1	0.94	0.07	52,52,52,52	0
56	MG	1A	4692	1/1	0.94	0.26	61,61,61,61	0
56	MG	1T	201	1/1	0.94	0.13	66,66,66,66	0
56	MG	1T	203	1/1	0.94	0.09	62,62,62,62	0
56	MG	1A	4104	1/1	0.94	0.29	56,56,56,56	0
56	MG	1A	4235	1/1	0.94	0.12	57,57,57,57	0
56	MG	2D	304	1/1	0.94	0.06	107,107,107,107	0
56	MG	1A	5028	1/1	0.94	0.04	70,70,70,70	0
56	MG	1A	4133	1/1	0.94	0.34	58,58,58,58	0
56	MG	1A	4465	1/1	0.94	0.23	60,60,60,60	0
56	MG	2A	3415	1/1	0.94	0.12	124,124,124,124	0
56	MG	2A	3306	1/1	0.94	0.09	85,85,85,85	0
56	MG	1A	4306	1/1	0.94	0.05	97,97,97,97	0
56	MG	1A	4944	1/1	0.94	0.09	88,88,88,88	0
56	MG	2A	3772	1/1	0.94	0.13	98,98,98,98	0
56	MG	1A	4630	1/1	0.94	0.07	56,56,56,56	0
56	MG	1A	4392	1/1	0.94	0.06	103,103,103,103	0
56	MG	1A	4430	1/1	0.94	0.25	61,61,61,61	0
56	MG	2A	3422	1/1	0.94	0.10	130,130,130,130	0
56	MG	2N	202	1/1	0.94	0.08	84,84,84,84	0
56	MG	11	101	1/1	0.94	0.24	87,87,87,87	0
56	MG	1a	1872	1/1	0.94	0.07	195,195,195,195	0
56	MG	2A	3314	1/1	0.94	0.10	93,93,93,93	0
56	MG	1A	4702	1/1	0.94	0.05	58,58,58,58	0
56	MG	1A	5040	1/1	0.94	0.30	78,78,78,78	0
56	MG	1A	4362	1/1	0.94	0.20	67,67,67,67	0
56	MG	1A	4195	1/1	0.94	0.18	68,68,68,68	0
56	MG	1A	4636	1/1	0.94	0.21	64,64,64,64	0
56	MG	17	101	1/1	0.94	0.20	58,58,58,58	0
56	MG	1A	5045	1/1	0.94	0.08	67,67,67,67	0
56	MG	1A	4030	1/1	0.94	0.15	58,58,58,58	0
56	MG	18	103	1/1	0.94	0.22	75,75,75,75	0
56	MG	1A	5049	1/1	0.94	0.12	72,72,72,72	0
56	MG	1A	4707	1/1	0.94	0.31	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3438	1/1	0.94	0.24	79,79,79,79	0
56	MG	1a	1602	1/1	0.94	0.13	77,77,77,77	0
56	MG	1A	4576	1/1	0.94	0.14	55,55,55,55	0
56	MG	1A	4124	1/1	0.94	0.23	76,76,76,76	0
56	MG	1A	4877	1/1	0.94	0.08	81,81,81,81	0
56	MG	2A	3796	1/1	0.94	0.17	96,96,96,96	0
56	MG	1A	4711	1/1	0.94	0.18	78,78,78,78	0
56	MG	1A	4476	1/1	0.94	0.19	66,66,66,66	0
56	MG	1A	4059	1/1	0.94	0.12	72,72,72,72	0
56	MG	2A	3679	1/1	0.94	0.07	106,106,106,106	0
56	MG	2A	3561	1/1	0.94	0.33	88,88,88,88	0
56	MG	1A	4004	1/1	0.94	0.28	45,45,45,45	0
56	MG	1A	4200	1/1	0.94	0.04	69,69,69,69	0
56	MG	1A	4883	1/1	0.94	0.03	59,59,59,59	0
56	MG	1A	4583	1/1	0.94	0.26	56,56,56,56	0
56	MG	1A	4720	1/1	0.94	0.19	79,79,79,79	0
56	MG	1A	4340	1/1	0.94	0.23	57,57,57,57	0
56	MG	1A	4527	1/1	0.94	0.13	76,76,76,76	0
56	MG	2A	3036	1/1	0.94	0.04	76,76,76,76	0
56	MG	1A	4800	1/1	0.94	0.08	69,69,69,69	0
56	MG	1A	4655	1/1	0.94	0.22	82,82,82,82	0
56	MG	1a	1711	1/1	0.94	0.06	125,125,125,125	0
56	MG	2a	1852	1/1	0.94	0.03	45,45,45,45	0
56	MG	2w	201	1/1	0.94	0.10	84,84,84,84	0
56	MG	1A	4370	1/1	0.94	0.13	61,61,61,61	0
56	MG	2A	3141	1/1	0.94	0.09	96,96,96,96	0
56	MG	2A	3694	1/1	0.94	0.11	61,61,61,61	0
56	MG	1A	4980	1/1	0.94	0.15	59,59,59,59	0
56	MG	1A	4341	1/1	0.94	0.34	48,48,48,48	0
56	MG	1A	4026	1/1	0.94	0.12	69,69,69,69	0
56	MG	1A	4533	1/1	0.94	0.15	68,68,68,68	0
56	MG	2a	1862	1/1	0.94	0.08	155,155,155,155	0
56	MG	1A	4445	1/1	0.94	0.34	73,73,73,73	0
56	MG	1A	4896	1/1	0.94	0.18	61,61,61,61	0
56	MG	1a	1722	1/1	0.94	0.14	113,113,113,113	0
56	MG	1A	4139	1/1	0.94	0.17	68,68,68,68	0
56	MG	1A	4044	1/1	0.94	0.19	62,62,62,62	0
56	MG	1A	4489	1/1	0.94	0.08	75,75,75,75	0
56	MG	1A	4407	1/1	0.94	0.17	52,52,52,52	0
56	MG	1A	4408	1/1	0.94	0.09	57,57,57,57	0
56	MG	2A	3708	1/1	0.94	0.11	100,100,100,100	0
56	MG	1A	4817	1/1	0.94	0.11	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4295	1/1	0.94	0.13	83,83,83,83	0
56	MG	1A	4668	1/1	0.94	0.07	93,93,93,93	0
56	MG	2A	3258	1/1	0.94	0.23	75,75,75,75	0
56	MG	1A	4544	1/1	0.94	0.15	77,77,77,77	0
56	MG	1b	303	1/1	0.94	0.05	166,166,166,166	0
56	MG	2A	3368	1/1	0.94	0.09	100,100,100,100	0
56	MG	1A	4739	1/1	0.94	0.13	74,74,74,74	0
56	MG	2A	3061	1/1	0.94	0.09	92,92,92,92	0
56	MG	1A	4531	1/1	0.95	0.08	68,68,68,68	0
56	MG	1A	4154	1/1	0.95	0.09	68,68,68,68	0
56	MG	2A	3581	1/1	0.95	0.04	116,116,116,116	0
56	MG	1A	4828	1/1	0.95	0.08	80,80,80,80	0
56	MG	1A	4632	1/1	0.95	0.13	66,66,66,66	0
56	MG	1A	4057	1/1	0.95	0.32	63,63,63,63	0
56	MG	1A	4350	1/1	0.95	0.20	68,68,68,68	0
56	MG	1A	4282	1/1	0.95	0.15	69,69,69,69	0
56	MG	1a	1608	1/1	0.95	0.10	69,69,69,69	0
56	MG	1a	1693	1/1	0.95	0.06	136,136,136,136	0
56	MG	1A	4204	1/1	0.95	0.13	64,64,64,64	0
56	MG	1A	4539	1/1	0.95	0.05	69,69,69,69	0
56	MG	1A	4265	1/1	0.95	0.23	61,61,61,61	0
56	MG	1a	1876	1/1	0.95	0.09	102,102,102,102	0
56	MG	1A	4698	1/1	0.95	0.20	70,70,70,70	0
56	MG	1A	4586	1/1	0.95	0.20	73,73,73,73	0
56	MG	1A	4435	1/1	0.95	0.22	65,65,65,65	0
56	MG	1A	4643	1/1	0.95	0.14	64,64,64,64	0
56	MG	1A	4765	1/1	0.95	0.11	60,60,60,60	0
56	MG	1B	218	1/1	0.95	0.30	61,61,61,61	0
56	MG	2A	3600	1/1	0.95	0.07	118,118,118,118	0
56	MG	2A	3601	1/1	0.95	0.16	101,101,101,101	0
56	MG	2A	3498	1/1	0.95	0.08	102,102,102,102	0
56	MG	2A	3296	1/1	0.95	0.12	94,94,94,94	0
56	MG	2A	3707	1/1	0.95	0.19	100,100,100,100	0
56	MG	1A	4588	1/1	0.95	0.08	79,79,79,79	0
56	MG	1A	4267	1/1	0.95	0.27	63,63,63,63	0
56	MG	1a	1887	1/1	0.95	0.08	130,130,130,130	0
56	MG	1A	4646	1/1	0.95	0.25	69,69,69,69	0
56	MG	1B	222	1/1	0.95	0.04	91,91,91,91	0
56	MG	1A	4590	1/1	0.95	0.10	71,71,71,71	0
56	MG	1A	4005	1/1	0.95	0.14	65,65,65,65	0
56	MG	1A	5008	1/1	0.95	0.04	76,76,76,76	0
56	MG	25	101	1/1	0.95	0.03	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4649	1/1	0.95	0.11	65,65,65,65	0
56	MG	1A	4651	1/1	0.95	0.12	88,88,88,88	0
56	MG	1a	1713	1/1	0.95	0.05	109,109,109,109	0
56	MG	2A	3118	1/1	0.95	0.06	135,135,135,135	0
56	MG	27	103	1/1	0.95	0.08	97,97,97,97	0
56	MG	1A	4853	1/1	0.95	0.15	78,78,78,78	0
56	MG	2A	3514	1/1	0.95	0.04	114,114,114,114	0
56	MG	2A	3618	1/1	0.95	0.06	149,149,149,149	0
56	MG	1A	4020	1/1	0.95	0.17	73,73,73,73	0
56	MG	1A	4855	1/1	0.95	0.10	59,59,59,59	0
56	MG	1A	4470	1/1	0.95	0.14	54,54,54,54	0
56	MG	1A	4015	1/1	0.95	0.26	63,63,63,63	0
56	MG	1A	4859	1/1	0.95	0.11	72,72,72,72	0
56	MG	1A	4713	1/1	0.95	0.11	55,55,55,55	0
56	MG	2A	3729	1/1	0.95	0.20	83,83,83,83	0
56	MG	1A	4409	1/1	0.95	0.20	56,56,56,56	0
56	MG	1A	4936	1/1	0.95	0.13	61,61,61,61	0
56	MG	1A	4442	1/1	0.95	0.06	75,75,75,75	0
56	MG	1A	4939	1/1	0.95	0.23	71,71,71,71	0
56	MG	1E	306	1/1	0.95	0.07	83,83,83,83	0
56	MG	1A	4716	1/1	0.95	0.14	72,72,72,72	0
56	MG	1A	4083	1/1	0.95	0.15	58,58,58,58	0
56	MG	1A	4290	1/1	0.95	0.26	70,70,70,70	0
56	MG	2A	3134	1/1	0.95	0.08	83,83,83,83	0
56	MG	2A	3851	1/1	0.95	0.04	110,110,110,110	0
56	MG	1a	1643	1/1	0.95	0.11	130,130,130,130	0
56	MG	1A	4076	1/1	0.95	0.13	77,77,77,77	0
56	MG	1A	4210	1/1	0.95	0.16	58,58,58,58	0
56	MG	1A	4789	1/1	0.95	0.08	96,96,96,96	0
56	MG	2a	1728	1/1	0.95	0.18	79,79,79,79	0
56	MG	1A	5029	1/1	0.95	0.06	69,69,69,69	0
56	MG	1A	4947	1/1	0.95	0.18	71,71,71,71	0
56	MG	2A	3047	1/1	0.95	0.15	99,99,99,99	0
56	MG	1A	4293	1/1	0.95	0.08	78,78,78,78	0
56	MG	1A	5032	1/1	0.95	0.08	83,83,83,83	0
56	MG	1A	4871	1/1	0.95	0.22	55,55,55,55	0
56	MG	2A	3051	1/1	0.95	0.09	104,104,104,104	0
56	MG	1A	4555	1/1	0.95	0.16	57,57,57,57	0
56	MG	2A	3147	1/1	0.95	0.14	82,82,82,82	0
56	MG	2a	1855	1/1	0.95	0.03	88,88,88,88	0
56	MG	1Q	203	1/1	0.95	0.07	50,50,50,50	0
56	MG	1A	4664	1/1	0.95	0.15	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2A	3341	1/1	0.95	0.07	86,86,86,86	0
56	MG	1A	4480	1/1	0.95	0.06	80,80,80,80	0
56	MG	1A	4025	1/1	0.95	0.15	67,67,67,67	0
56	MG	2a	1861	1/1	0.95	0.05	153,153,153,153	0
56	MG	1A	4114	1/1	0.95	0.12	56,56,56,56	0
56	MG	1A	4078	1/1	0.95	0.20	66,66,66,66	0
56	MG	1A	4729	1/1	0.95	0.12	64,64,64,64	0
56	MG	1A	4801	1/1	0.95	0.08	76,76,76,76	0
56	MG	1A	4420	1/1	0.95	0.24	50,50,50,50	0
56	MG	1U	203	1/1	0.95	0.10	64,64,64,64	0
56	MG	1W	202	1/1	0.95	0.08	55,55,55,55	0
56	MG	2a	1750	1/1	0.95	0.09	120,120,120,120	0
56	MG	1A	4244	1/1	0.95	0.18	51,51,51,51	0
56	MG	1Z	301	1/1	0.95	0.18	80,80,80,80	0
56	MG	2A	3662	1/1	0.95	0.11	96,96,96,96	0
56	MG	1A	4486	1/1	0.95	0.14	67,67,67,67	0
56	MG	1Z	303	1/1	0.95	0.07	42,42,42,42	0
56	MG	1A	4522	1/1	0.95	0.14	76,76,76,76	0
56	MG	1A	4963	1/1	0.95	0.09	78,78,78,78	0
56	MG	1A	4260	1/1	0.95	0.29	58,58,58,58	0
56	MG	1A	4524	1/1	0.95	0.34	74,74,74,74	0
56	MG	1A	4245	1/1	0.95	0.24	52,52,52,52	0
56	MG	1A	4322	1/1	0.95	0.15	85,85,85,85	0
56	MG	1A	4396	1/1	0.95	0.33	72,72,72,72	0
56	MG	1A	4740	1/1	0.95	0.08	79,79,79,79	0
56	MG	1A	4571	1/1	0.95	0.14	79,79,79,79	0
56	MG	1A	4893	1/1	0.95	0.05	65,65,65,65	0
56	MG	1A	4371	1/1	0.95	0.21	74,74,74,74	0
56	MG	1A	5060	1/1	0.95	0.24	64,64,64,64	0
56	MG	1A	4574	1/1	0.95	0.18	57,57,57,57	0
56	MG	1A	4686	1/1	0.95	0.10	93,93,93,93	0
56	MG	1a	1772	1/1	0.95	0.03	136,136,136,136	0
57	ZN	1n	103	1/1	0.95	0.05	212,212,212,212	0
56	MG	1A	4347	1/1	0.95	0.10	66,66,66,66	0
56	MG	2a	1660	1/1	0.95	0.08	142,142,142,142	0
59	GDP	1v	704	28/28	0.95	0.07	117,117,117,117	0
56	MG	1A	4530	1/1	0.95	0.06	68,68,68,68	0
56	MG	2A	3180	1/1	0.95	0.09	116,116,116,116	0
56	MG	1A	4843	1/1	0.96	0.05	76,76,76,76	0
56	MG	1A	4107	1/1	0.96	0.23	52,52,52,52	0
56	MG	1A	4934	1/1	0.96	0.09	77,77,77,77	0
56	MG	1A	4845	1/1	0.96	0.15	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	17	102	1/1	0.96	0.12	61,61,61,61	0
56	MG	2A	3518	1/1	0.96	0.05	96,96,96,96	0
56	MG	1A	4638	1/1	0.96	0.04	66,66,66,66	0
56	MG	18	101	1/1	0.96	0.38	56,56,56,56	0
56	MG	2A	3265	1/1	0.96	0.08	90,90,90,90	0
56	MG	1a	1878	1/1	0.96	0.04	105,105,105,105	0
56	MG	2A	3653	1/1	0.96	0.09	117,117,117,117	0
56	MG	21	101	1/1	0.96	0.09	110,110,110,110	0
56	MG	1A	4534	1/1	0.96	0.05	78,78,78,78	0
56	MG	1A	4615	1/1	0.96	0.12	67,67,67,67	0
56	MG	1A	5044	1/1	0.96	0.10	52,52,52,52	0
56	MG	1A	4991	1/1	0.96	0.05	66,66,66,66	0
56	MG	1A	4641	1/1	0.96	0.06	79,79,79,79	0
56	MG	2A	3396	1/1	0.96	0.05	126,126,126,126	0
56	MG	1A	4766	1/1	0.96	0.07	56,56,56,56	0
56	MG	1A	4043	1/1	0.96	0.28	56,56,56,56	0
56	MG	1A	4231	1/1	0.96	0.04	72,72,72,72	0
56	MG	1A	4808	1/1	0.96	0.19	53,53,53,53	0
56	MG	1A	4770	1/1	0.96	0.13	65,65,65,65	0
56	MG	1A	4176	1/1	0.96	0.13	59,59,59,59	0
56	MG	1A	4318	1/1	0.96	0.13	81,81,81,81	0
56	MG	1A	4203	1/1	0.96	0.05	61,61,61,61	0
56	MG	2a	1810	1/1	0.96	0.06	129,129,129,129	0
56	MG	1A	4902	1/1	0.96	0.09	63,63,63,63	0
56	MG	1A	4223	1/1	0.96	0.05	70,70,70,70	0
56	MG	1A	4412	1/1	0.96	0.06	62,62,62,62	0
56	MG	1A	4128	1/1	0.96	0.17	60,60,60,60	0
56	MG	1A	4906	1/1	0.96	0.17	57,57,57,57	0
56	MG	1A	4650	1/1	0.96	0.17	63,63,63,63	0
56	MG	1A	4339	1/1	0.96	0.20	59,59,59,59	0
56	MG	1A	4821	1/1	0.96	0.09	73,73,73,73	0
56	MG	2A	3741	1/1	0.96	0.15	85,85,85,85	0
56	MG	1A	4684	1/1	0.96	0.17	52,52,52,52	0
56	MG	1A	4236	1/1	0.96	0.30	55,55,55,55	0
56	MG	1a	1789	1/1	0.96	0.05	111,111,111,111	0
56	MG	2A	3117	1/1	0.96	0.09	134,134,134,134	0
56	MG	1A	4185	1/1	0.96	0.25	62,62,62,62	0
56	MG	2A	3234	1/1	0.96	0.16	103,103,103,103	0
56	MG	1A	4827	1/1	0.96	0.24	69,69,69,69	0
56	MG	2A	3819	1/1	0.96	0.07	42,42,42,42	0
56	MG	2A	3749	1/1	0.96	0.15	93,93,93,93	0
56	MG	1A	4266	1/1	0.96	0.17	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2a	1830	1/1	0.96	0.06	147,147,147,147	0
56	MG	1A	4239	1/1	0.96	0.10	56,56,56,56	0
56	MG	1A	4344	1/1	0.96	0.21	70,70,70,70	0
56	MG	1A	4421	1/1	0.96	0.10	58,58,58,58	0
56	MG	1A	4751	1/1	0.96	0.20	71,71,71,71	0
56	MG	1U	202	1/1	0.96	0.33	58,58,58,58	0
56	MG	1A	4969	1/1	0.96	0.12	63,63,63,63	0
56	MG	1W	201	1/1	0.96	0.13	72,72,72,72	0
56	MG	1A	5023	1/1	0.96	0.09	58,58,58,58	0
56	MG	2a	1916	1/1	0.96	0.04	63,63,63,63	0
56	MG	2a	1842	1/1	0.96	0.07	196,196,196,196	0
56	MG	1A	4921	1/1	0.96	0.10	71,71,71,71	0
56	MG	1A	4603	1/1	0.96	0.15	67,67,67,67	0
56	MG	1A	4834	1/1	0.96	0.14	72,72,72,72	0
56	MG	1a	1689	1/1	0.96	0.09	133,133,133,133	0
56	MG	1A	4310	1/1	0.96	0.23	73,73,73,73	0
56	MG	1A	4166	1/1	0.96	0.28	34,34,34,34	0
56	MG	2A	3766	1/1	0.96	0.09	66,66,66,66	0
56	MG	1A	4976	1/1	0.96	0.15	77,77,77,77	0
56	MG	2A	3436	1/1	0.96	0.13	104,104,104,104	0
56	MG	1A	4508	1/1	0.96	0.06	70,70,70,70	0
56	MG	1A	4978	1/1	0.96	0.24	60,60,60,60	0
56	MG	2A	3439	1/1	0.96	0.25	56,56,56,56	0
57	ZN	2Y	203	1/1	0.96	0.06	153,153,153,153	0
56	MG	1A	4098	1/1	0.96	0.15	53,53,53,53	0
56	MG	1A	4758	1/1	0.96	0.08	75,75,75,75	0
56	MG	1A	4173	1/1	0.96	0.17	57,57,57,57	0
56	MG	1A	4760	1/1	0.96	0.11	67,67,67,67	0
56	MG	2A	3317	1/1	0.96	0.09	81,81,81,81	0
56	MG	2a	1851	1/1	0.97	0.05	145,145,145,145	0
56	MG	2A	3352	1/1	0.97	0.10	89,89,89,89	0
56	MG	1A	4974	1/1	0.97	0.11	74,74,74,74	0
56	MG	1A	4552	1/1	0.97	0.12	71,71,71,71	0
56	MG	1A	4186	1/1	0.97	0.17	59,59,59,59	0
56	MG	2A	3187	1/1	0.97	0.07	105,105,105,105	0
56	MG	1A	4816	1/1	0.97	0.07	75,75,75,75	0
56	MG	1A	4033	1/1	0.97	0.14	70,70,70,70	0
56	MG	2A	3496	1/1	0.97	0.07	99,99,99,99	0
56	MG	1a	1614	1/1	0.97	0.04	93,93,93,93	0
56	MG	1A	4792	1/1	0.97	0.04	66,66,66,66	0
56	MG	1A	4607	1/1	0.97	0.05	67,67,67,67	0
56	MG	1a	1721	1/1	0.97	0.04	134,134,134,134	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4952	1/1	0.97	0.11	65,65,65,65	0
56	MG	1A	4192	1/1	0.97	0.11	68,68,68,68	0
56	MG	1A	4872	1/1	0.97	0.14	54,54,54,54	0
56	MG	1v	703	1/1	0.97	0.07	116,116,116,116	0
56	MG	1N	201	1/1	0.97	0.07	72,72,72,72	0
56	MG	2A	3074	1/1	0.97	0.09	138,138,138,138	0
56	MG	1x	302	1/1	0.97	0.07	45,45,45,45	0
56	MG	1a	1726	1/1	0.97	0.03	127,127,127,127	0
56	MG	1A	4735	1/1	0.97	0.08	65,65,65,65	0
56	MG	2a	1719	1/1	0.97	0.04	151,151,151,151	0
56	MG	1y	103	1/1	0.97	0.09	89,89,89,89	0
56	MG	1A	4775	1/1	0.97	0.10	78,78,78,78	0
56	MG	1A	4718	1/1	0.97	0.06	99,99,99,99	0
56	MG	1A	4849	1/1	0.97	0.04	84,84,84,84	0
56	MG	1A	4416	1/1	0.97	0.13	57,57,57,57	0
56	MG	1A	4582	1/1	0.97	0.17	65,65,65,65	0
56	MG	20	106	1/1	0.97	0.05	128,128,128,128	0
56	MG	1a	1695	1/1	0.97	0.04	159,159,159,159	0
56	MG	1A	4596	1/1	0.97	0.06	65,65,65,65	0
56	MG	2a	1679	1/1	0.97	0.06	166,166,166,166	0
56	MG	1A	4672	1/1	0.97	0.26	67,67,67,67	0
56	MG	2a	1832	1/1	0.97	0.06	138,138,138,138	0
56	MG	1P	205	1/1	0.97	0.05	95,95,95,95	0
56	MG	2a	1834	1/1	0.97	0.05	161,161,161,161	0
56	MG	2A	3384	1/1	0.97	0.23	105,105,105,105	0
56	MG	1A	4151	1/1	0.97	0.32	60,60,60,60	0
56	MG	1Q	202	1/1	0.97	0.07	67,67,67,67	0
56	MG	1A	4537	1/1	0.97	0.08	66,66,66,66	0
56	MG	1A	4937	1/1	0.97	0.07	58,58,58,58	0
56	MG	1A	4783	1/1	0.97	0.23	70,70,70,70	0
56	MG	2A	3847	1/1	0.97	0.09	91,91,91,91	0
56	MG	1S	201	1/1	0.97	0.29	74,74,74,74	0
56	MG	1A	4468	1/1	0.97	0.07	58,58,58,58	0
57	ZN	14	501	1/1	0.97	0.09	172,172,172,172	0
56	MG	2a	1642	1/1	0.97	0.07	143,143,143,143	0
56	MG	1A	5061	1/1	0.97	0.03	91,91,91,91	0
56	MG	1A	4709	1/1	0.97	0.09	68,68,68,68	0
56	MG	1A	4511	1/1	0.97	0.08	68,68,68,68	0
58	SF4	1d	304	8/8	0.97	0.04	150,150,150,150	0
58	SF4	2d	303	8/8	0.97	0.04	166,166,166,166	0
56	MG	1A	4836	1/1	0.97	0.10	58,58,58,58	0
56	MG	1A	4109	1/1	0.97	0.20	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1A	4221	1/1	0.97	0.29	71,71,71,71	0
56	MG	1a	1727	1/1	0.98	0.05	127,127,127,127	0
56	MG	1a	1793	1/1	0.98	0.03	128,128,128,128	0
56	MG	1e	301	1/1	0.98	0.09	140,140,140,140	0
56	MG	1A	4382	1/1	0.98	0.06	68,68,68,68	0
56	MG	2b	301	1/1	0.98	0.03	199,199,199,199	0
56	MG	1A	4611	1/1	0.98	0.15	54,54,54,54	0
56	MG	1A	4028	1/1	0.98	0.10	58,58,58,58	0
56	MG	1A	4613	1/1	0.98	0.07	70,70,70,70	0
56	MG	2a	1831	1/1	0.98	0.06	145,145,145,145	0
56	MG	2A	3765	1/1	0.98	0.03	120,120,120,120	0
56	MG	1V	201	1/1	0.98	0.23	74,74,74,74	0
56	MG	1A	4438	1/1	0.98	0.04	65,65,65,65	0
56	MG	2A	3813	1/1	0.98	0.03	126,126,126,126	0
56	MG	1H	202	1/1	0.98	0.23	76,76,76,76	0
56	MG	2A	3592	1/1	0.98	0.08	129,129,129,129	0
56	MG	1A	4869	1/1	0.98	0.08	54,54,54,54	0
56	MG	1A	4016	1/1	0.98	0.16	68,68,68,68	0
56	MG	1O	202	1/1	0.98	0.04	82,82,82,82	0
56	MG	2A	3510	1/1	0.98	0.04	94,94,94,94	0
56	MG	1A	4092	1/1	0.98	0.05	60,60,60,60	0
56	MG	1A	4945	1/1	0.98	0.04	73,73,73,73	0
56	MG	2A	3471	1/1	0.98	0.06	113,113,113,113	0
56	MG	1A	4674	1/1	0.98	0.06	91,91,91,91	0
56	MG	1A	4967	1/1	0.98	0.04	83,83,83,83	0
56	MG	1A	4822	1/1	0.98	0.27	82,82,82,82	0
56	MG	10	103	1/1	0.98	0.06	72,72,72,72	0
56	MG	2A	3357	1/1	0.98	0.03	87,87,87,87	0
56	MG	1A	4928	1/1	0.98	0.04	77,77,77,77	0
56	MG	1A	4675	1/1	0.98	0.04	104,104,104,104	0
56	MG	1A	4201	1/1	0.98	0.09	70,70,70,70	0
56	MG	1A	4994	1/1	0.98	0.04	79,79,79,79	0
56	MG	1D	304	1/1	0.98	0.04	75,75,75,75	0
56	MG	1A	4238	1/1	0.98	0.17	59,59,59,59	0
56	MG	1a	1885	1/1	0.98	0.10	128,128,128,128	0
56	MG	1A	4471	1/1	0.98	0.07	60,60,60,60	0
56	MG	2A	3485	1/1	0.98	0.03	60,60,60,60	0
56	MG	1R	202	1/1	0.98	0.08	56,56,56,56	0
56	MG	1A	5046	1/1	0.98	0.15	78,78,78,78	0
56	MG	1A	4810	1/1	0.98	0.04	63,63,63,63	0
56	MG	2A	3369	1/1	0.98	0.04	84,84,84,84	0
56	MG	1A	4914	1/1	0.98	0.04	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1a	1787	1/1	0.98	0.03	124,124,124,124	0
57	ZN	26	102	1/1	0.98	0.03	130,130,130,130	0
57	ZN	29	103	1/1	0.98	0.07	143,143,143,143	0
56	MG	1A	5000	1/1	0.98	0.07	63,63,63,63	0
56	MG	2A	3075	1/1	0.98	0.03	142,142,142,142	0
56	MG	1T	202	1/1	0.98	0.10	83,83,83,83	0
56	MG	1A	4570	1/1	0.98	0.07	60,60,60,60	0
56	MG	2A	3580	1/1	0.98	0.06	118,118,118,118	0
56	MG	1A	4680	1/1	0.98	0.04	82,82,82,82	0
56	MG	1A	5039	1/1	0.99	0.04	68,68,68,68	0
56	MG	1A	4572	1/1	0.99	0.06	83,83,83,83	0
56	MG	1A	4856	1/1	0.99	0.03	60,60,60,60	0
56	MG	1A	4591	1/1	0.99	0.04	85,85,85,85	0
56	MG	1A	4996	1/1	0.99	0.04	71,71,71,71	0
56	MG	1A	4567	1/1	0.99	0.08	56,56,56,56	0
56	MG	1A	4793	1/1	0.99	0.02	108,108,108,108	0
56	MG	1A	4825	1/1	0.99	0.03	92,92,92,92	0
56	MG	1A	4918	1/1	0.99	0.05	61,61,61,61	0
56	MG	2A	3455	1/1	0.99	0.04	90,90,90,90	0
56	MG	1A	5048	1/1	0.99	0.03	65,65,65,65	0
56	MG	1a	1720	1/1	0.99	0.02	124,124,124,124	0
56	MG	1A	5001	1/1	0.99	0.03	65,65,65,65	0
56	MG	1A	4979	1/1	0.99	0.04	58,58,58,58	0
56	MG	1A	4794	1/1	0.99	0.05	67,67,67,67	0
56	MG	1A	4755	1/1	0.99	0.04	60,60,60,60	0
56	MG	1a	1806	1/1	0.99	0.03	135,135,135,135	0
56	MG	1A	4744	1/1	0.99	0.04	69,69,69,69	0
57	ZN	1Y	302	1/1	0.99	0.04	96,96,96,96	0
56	MG	1E	307	1/1	0.99	0.04	62,62,62,62	0
56	MG	1A	4769	1/1	0.99	0.04	72,72,72,72	0
56	MG	1A	4654	1/1	0.99	0.06	84,84,84,84	0
56	MG	1A	4814	1/1	0.99	0.03	59,59,59,59	0
57	ZN	25	102	1/1	0.99	0.04	119,119,119,119	0
56	MG	1A	4351	1/1	0.99	0.07	67,67,67,67	0
56	MG	1A	4325	1/1	0.99	0.05	63,63,63,63	0
56	MG	1A	4254	1/1	0.99	0.06	66,66,66,66	0
56	MG	1A	4498	1/1	0.99	0.06	63,63,63,63	0
56	MG	2A	3820	1/1	0.99	0.04	106,106,106,106	0
56	MG	1A	4597	1/1	0.99	0.05	65,65,65,65	0
56	MG	1A	4614	1/1	0.99	0.03	71,71,71,71	0
56	MG	1A	4873	1/1	0.99	0.04	55,55,55,55	0
57	ZN	15	103	1/1	1.00	0.02	74,74,74,74	0

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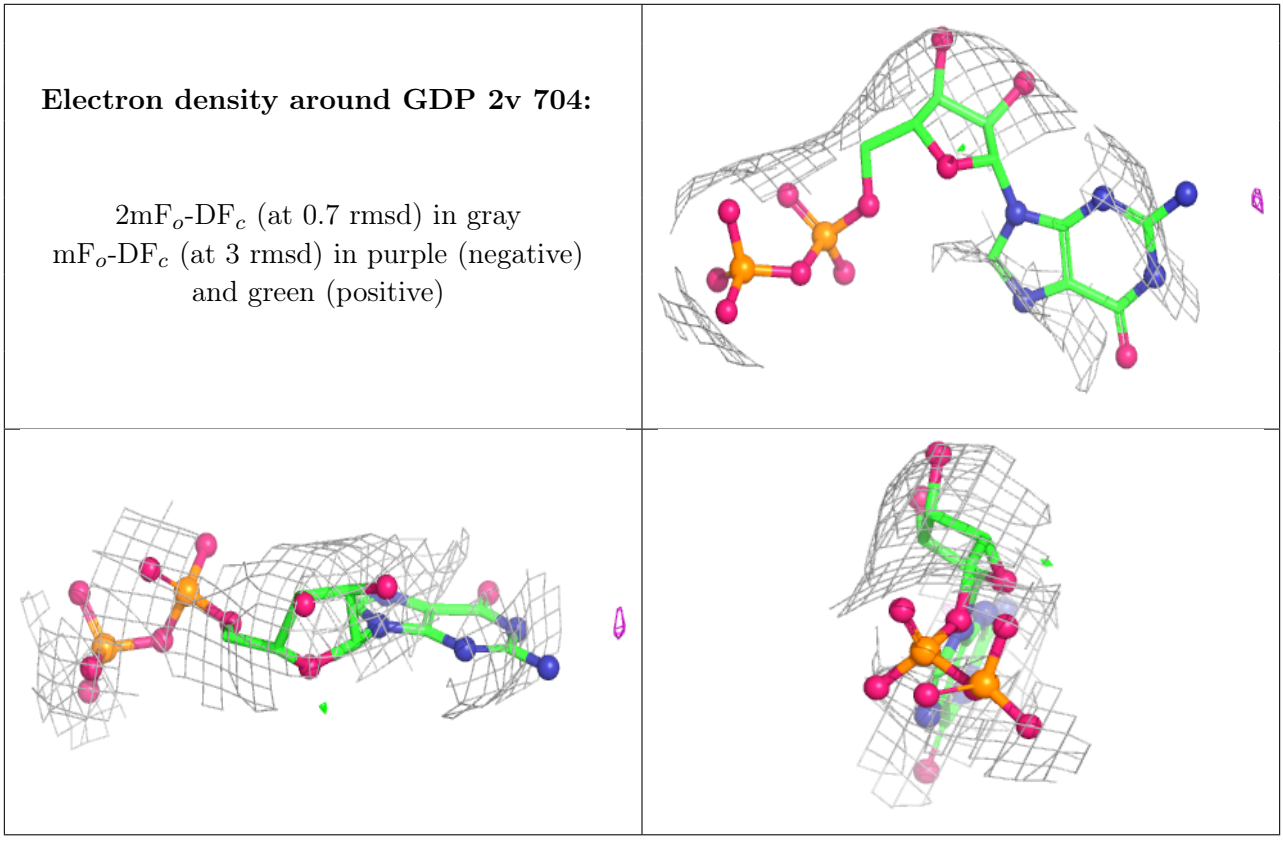
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	ZN	16	102	1/1	1.00	0.02	82,82,82,82	0
57	ZN	19	102	1/1	1.00	0.04	80,80,80,80	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

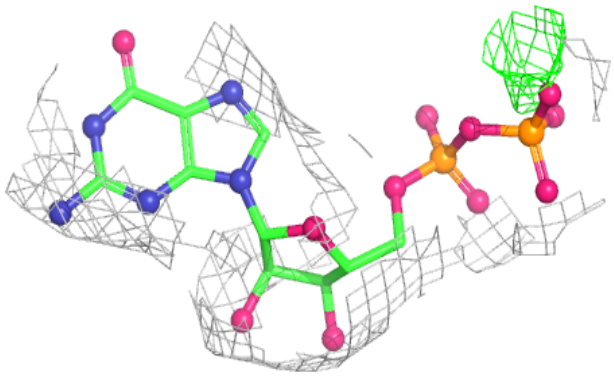
Electron density around GDP 2v 704:

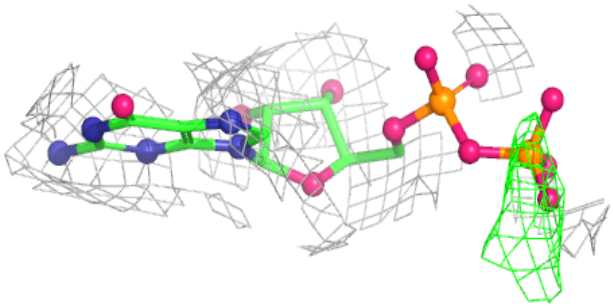
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

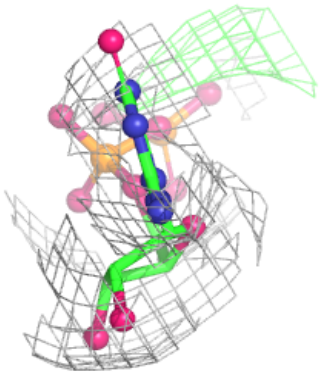


Electron density around GDP 1v 704:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)







6.5 Other polymers

There are no such residues in this entry.