Full wwPDB X-ray Structure Validation Report (i)

Mar 11, 2025 – 09:10 pm GMT

PDB ID	:	7AZO
Title	:	70S thermus thermophilus ribosome with bound antibiotic lead SEQ-977
Authors	:	Jenner, L.B.; Yusupov, M.; Yusupova, G.
Deposited on	:	2020-11-17
Resolution	:	3.30 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:

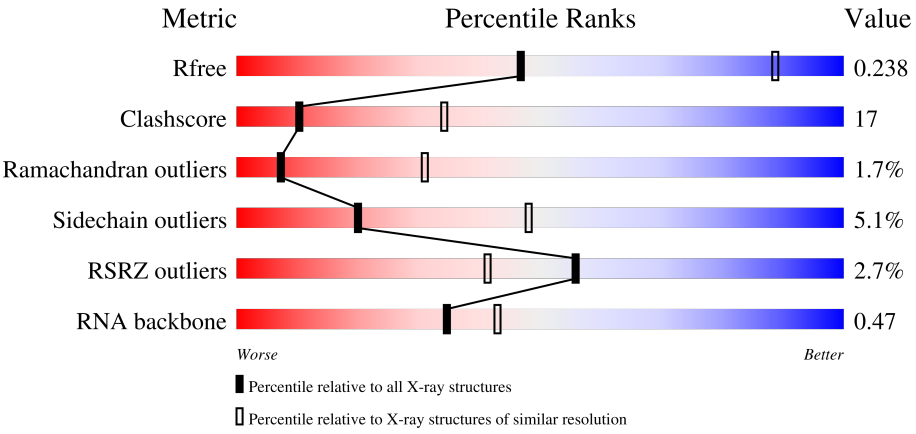
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.003 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.41

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 3.30 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}	164625	1085 (3.32-3.28)
Clashscore	180529	1128 (3.32-3.28)
Ramachandran outliers	177936	1125 (3.32-3.28)
Sidechain outliers	177891	1124 (3.32-3.28)
RSRZ outliers	164620	1085 (3.32-3.28)
RNA backbone	3690	1014 (3.64-2.96)

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	16SA	1512	72% 24% ·
1	16SB	1512	71% 25% ·
2	S2A	256	3% 50% 38% 5% 7%
2	S2B	256	4% 45% 44% · 7%

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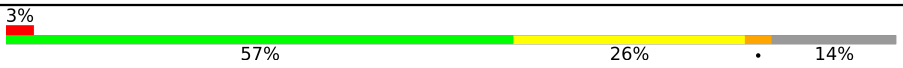
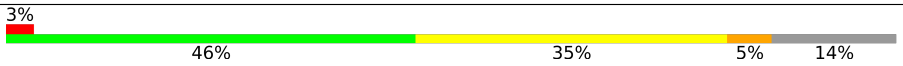
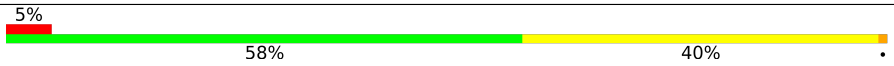
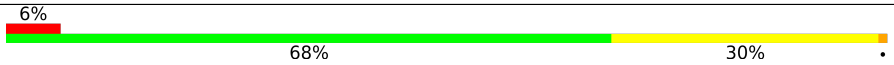
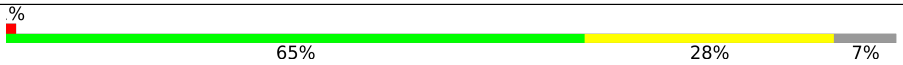
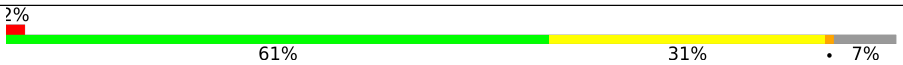
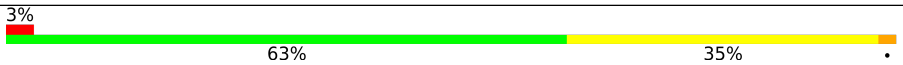
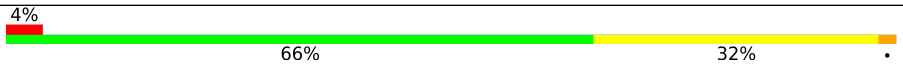
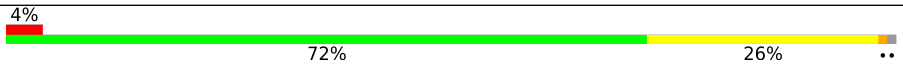
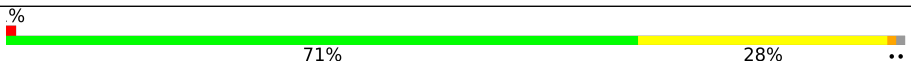
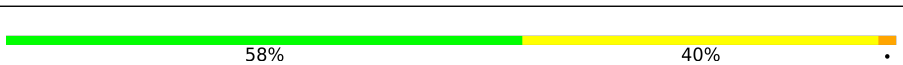
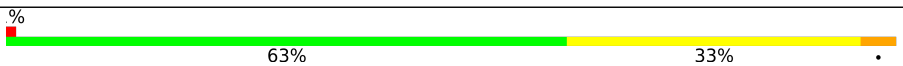
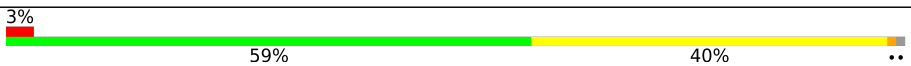
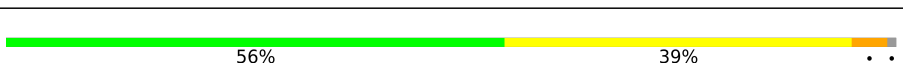
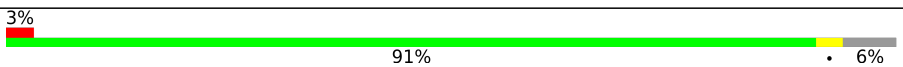
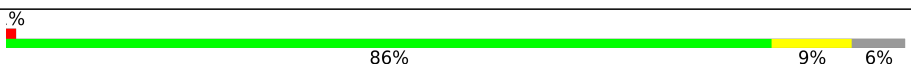
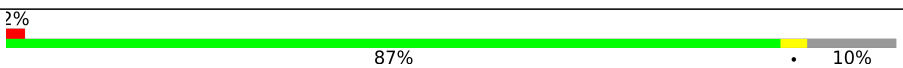
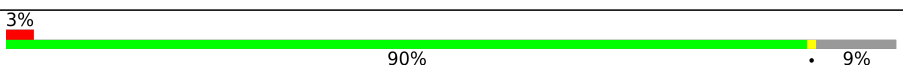
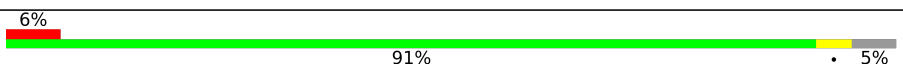
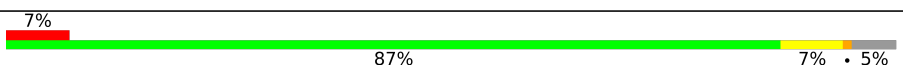
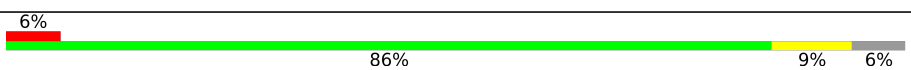
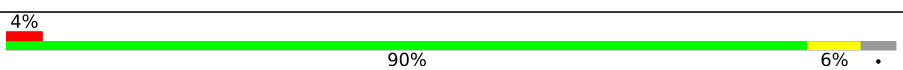
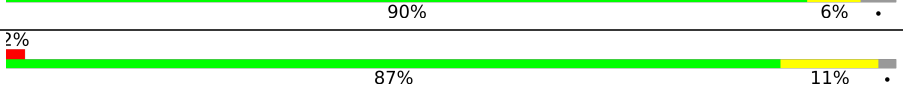
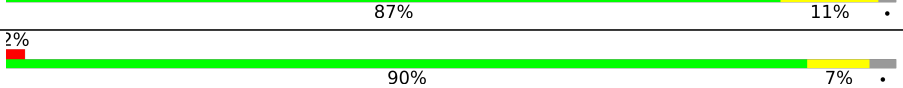
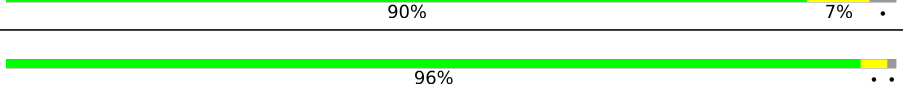
Mol	Chain	Length	Quality of chain
3	S3A	239	
3	S3B	239	
4	S4A	209	
4	S4B	209	
5	S5A	162	
5	S5B	162	
6	S6A	101	
6	S6B	101	
7	S7A	156	
7	S7B	156	
8	S8A	138	
8	S8B	138	
9	S9A	128	
9	S9B	128	
10	S10A	105	
10	S10B	105	
11	S11A	129	
11	S11B	129	
12	S12A	132	
12	S12B	132	
13	S13A	126	
13	S13B	126	
14	S14A	61	
14	S14B	61	
15	S15A	89	

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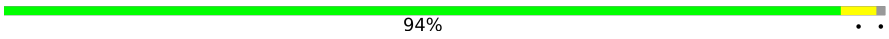
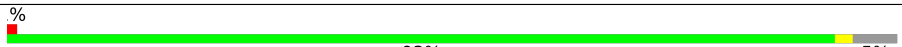
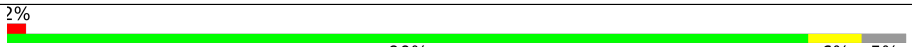
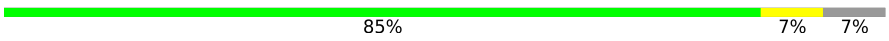
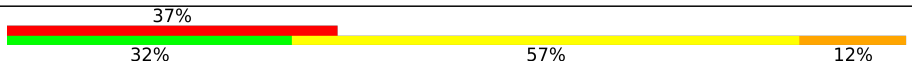
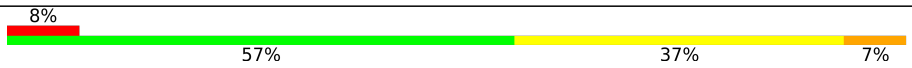
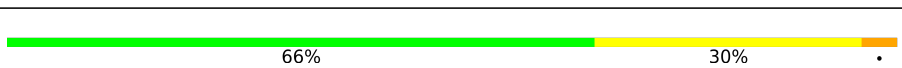
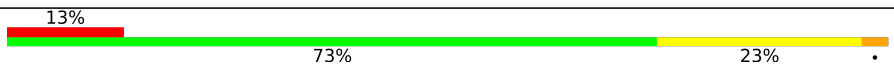
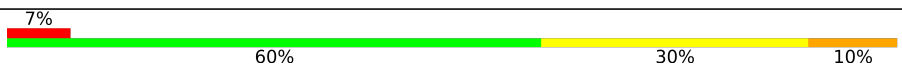
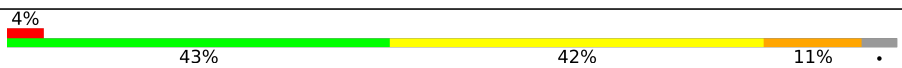
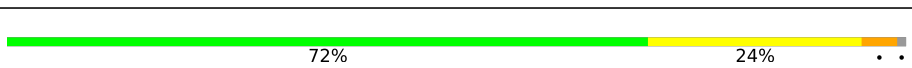
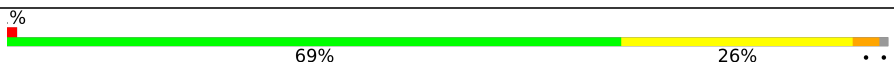
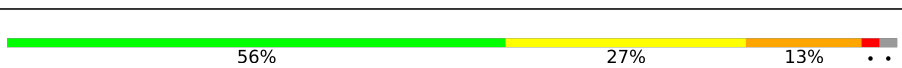
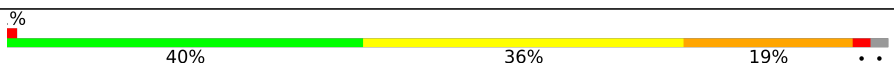
Mol	Chain	Length	Quality of chain
15	S15B	89	
16	S16A	88	
16	S16B	88	
17	S17A	105	
17	S17B	105	
18	S18A	88	
18	S18B	88	
19	S19A	93	
19	S19B	93	
20	S20A	106	
20	S20B	106	
21	THXA	27	
21	THXB	27	
22	ASIA	76	
23	PSIA	76	
23	PSIB	76	
24	ESIA	76	
24	ESIB	76	
25	MRNA	30	
25	MRNB	30	
26	TRNA	76	
27	23SA	2911	
27	23SB	2911	
28	5SA	124	
28	5SB	124	

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Mol	Chain	Length	Quality of chain
29	L2A	276	73% 24%
29	L2B	276	% 71% 26%
30	L3A	206	% 75% 23%
30	L3B	206	3% 68% 29%
31	L4A	210	% 60% 35%
31	L4B	210	3% 58% 38%
32	L5A	182	% 63% 32%
32	L5B	182	2% 59% 35% 6%
33	L6A	180	6% 50% 42% 5%
33	L6B	180	43% 46% 46% 5%
34	L9A	148	13% 47% 43% 8%
34	L9B	148	20% 52% 41% 6%
35	L13A	140	2% 94%
35	L13B	140	17% 96%
36	L14A	122	2% 96%
36	L14B	122	3% 93% 7%
37	L15A	150	87% 11%
37	L15B	150	% 88% 11%
38	L16A	141	4% 91% 9%
38	L16B	141	3% 91% 9%
39	L17A	118	% 98%
39	L17B	118	97%
40	L18A	112	% 95% 5%
40	L18B	112	91% 7%
41	L19A	146	% 88% 5% 6%

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Mol	Chain	Length	Quality of chain
41	L19B	146	2% 90% 6%
42	L20A	118	95%
42	L20B	118	14% 91% 8%
43	L21A	101	90% 9%
43	L21B	101	29% 86% 13%
44	L22A	113	96%
44	L22B	113	96%
45	L23A	96	96%
45	L23B	96	95%
46	L24A	110	90% 6%
46	L24B	110	12% 89% 6%
47	L25A	206	5% 80% 6% 13%
47	L25B	206	4% 79% 7% 15%
48	L27A	85	95%
48	L27B	85	5% 92% 7%
49	L28A	98	3% 94% 5%
49	L28B	98	3% 96%
50	L29A	72	92%
50	L29B	72	3% 96%
51	L30A	60	95%
51	L30B	60	3% 95%
52	L31A	71	4% 85% 15%
52	L31B	71	89% 10%
53	L32A	60	2% 88% 5% 7%
53	L32B	60	5% 83% 10% 7%

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Mol	Chain	Length	Quality of chain
54	L33A	54	20% 67% 17% 17%
54	L33B	54	72% 11% 17%
55	L34A	49	2% 94%
55	L34B	49	2% 94% 6%
56	L35A	65	89% 9%
56	L35B	65	94% 5%
57	ASIB	76	11% 39% 58%

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
58	MG	16SB	2304[A]	-	-	-	X
58	MG	16SB	2304[B]	-	-	-	X
58	MG	23SA	3015	-	-	-	X
59	OHX	S4A	301	-	-	X	-

2 Entry composition

There are 62 unique types of molecules in this entry. The entry contains 306403 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	16SA	1512	Total	C	N	O	P	0	0	0
			32509	14478	6016	10503	1512			
1	16SB	1508	Total	C	N	O	P	0	0	0
			32429	14442	6008	10471	1508			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	S2A	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
2	S2B	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	S3A	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	S3B	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	S4A	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			
4	S4B	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	S5A	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	S5B	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	S6A	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			
6	S6B	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	S7A	155	Total	C	N	O	S	0	0	0
			1256	781	252	217	6			
7	S7B	155	Total	C	N	O	S	0	0	0
			1256	781	252	217	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	S8A	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			
8	S8B	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	S9A	127	Total	C	N	O	0	0	0
			1009	639	197	173			
9	S9B	127	Total	C	N	O	0	0	0
			1009	639	197	173			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	S10A	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	S10B	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	S11A	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			
11	S11B	117	Total	C	N	O	S	0	0	0
			873	543	166	161	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	S12A	125	Total	C	N	O	S	0	0	0
			977	615	196	164	2			
12	S12B	125	Total	C	N	O	S	0	0	0
			977	615	196	164	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	S13A	119	Total	C	N	O	S	0	0	0
			946	585	195	164	2			
13	S13B	121	Total	C	N	O	S	0	0	0
			964	597	199	166	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	S14A	60	Total	C	N	O	S	0	0	0
			491	312	104	71	4			
14	S14B	59	Total	C	N	O	S	0	0	0
			486	309	103	70	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	S15A	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			
15	S15B	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	S16A	83	Total	C	N	O	S	0	0	0
			700	443	139	117	1			
16	S16B	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	S17A	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	S17B	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	S18A	71	Total	C	N	O	0	0	0
			584	373	116	95			
18	S18B	70	Total	C	N	O	0	0	0
			573	367	112	94			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	S19A	84	Total	C	N	O	S	0	0	0
			674	430	126	116	2			
19	S19B	86	Total	C	N	O	S	0	0	0
			684	436	126	120	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	S20A	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			
20	S20B	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	THXA	24	Total 208	C 128	N 50	O 30	0	0	0
21	THXB	25	Total 217	C 134	N 52	O 31	0	0	0

- Molecule 22 is a RNA chain called Phe-tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	ASIA	76	Total 1628	C 731	N 290	O 530	P 75	S 2	0	0	0

- Molecule 23 is a RNA chain called Phe-tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
23	PSIA	76	Total 1635	C 735	N 291	O 532	P 75	S 2	0	0	0
23	PSIB	76	Total 1635	C 735	N 291	O 532	P 75	S 2	0	0	0

- Molecule 24 is a RNA chain called Phe-tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
24	ESIA	76	Total 1626	C 729	N 290	O 531	P 75	S 1	0	0	0
24	ESIB	76	Total 1626	C 729	N 290	O 531	P 75	S 1	0	0	0

- Molecule 25 is a RNA chain called RNA (30-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	MRNA	30	Total 621	C 279	N 88	O 225	P 29	0	0	0
25	MRNB	30	Total 621	C 279	N 88	O 225	P 29	0	0	0

- Molecule 26 is a RNA chain called Phe-tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
26	TRNA	73	Total 1565	C 702	N 279	O 510	P 72	S 2	0	0	0

- Molecule 27 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	23SA	2889	Total 62225	C 27699	N 11629	O 20008	P 2889	0	0	0
27	23SB	2873	Total 61886	C 27548	N 11574	O 19891	P 2873	0	0	0

- Molecule 28 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	5SA	122	Total 2617	C 1166	N 486	O 844	P 121	0	0	0
28	5SB	121	Total 2598	C 1156	N 481	O 840	P 121	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	L2A	272	Total 2115	C 1335	N 420	O 357	S 3	0	0	0
29	L2B	272	Total 2115	C 1335	N 420	O 357	S 3	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	L3A	204	Total 1563	C 988	N 299	O 270	S 6	0	0	0
30	L3B	204	Total 1563	C 988	N 299	O 270	S 6	0	0	0

- Molecule 31 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	L4A	202	Total 1585	C 1011	N 297	O 275	S 2	0	0	0
31	L4B	202	Total 1585	C 1011	N 297	O 275	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	L5A	181	Total 1473	C 942	N 268	O 259	S 4	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	L5B	181	Total	C	N	O	S	0	0	0
			1473	942	268	259	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	L6A	171	Total	C	N	O	S	0	0	0
			1316	835	247	233	1			
33	L6B	173	Total	C	N	O	S	0	0	0
			1327	842	249	235	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	L9A	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			
34	L9B	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	L13A	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
35	L13B	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	L14A	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			
36	L14B	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	L15A	150	Total	C	N	O	S	0	0	0
			1144	712	232	197	3			
37	L15B	150	Total	C	N	O	S	0	0	0
			1144	712	232	197	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	L16A	141	Total	C	N	O	S	0	0	0
			1121	715	212	187	7			
38	L16B	141	Total	C	N	O	S	0	0	0
			1121	715	212	187	7			

- Molecule 39 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	L17A	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			
39	L17B	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			

- Molecule 40 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	L18A	112	Total	C	N	O	S	0	0	0
			889	561	177	150	1			
40	L18B	111	Total	C	N	O		0	0	0
			881	556	176	149				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	L19A	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
41	L19B	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	L20A	117	Total	C	N	O	S	0	0	0
			963	610	202	150	1			
42	L20B	117	Total	C	N	O	S	0	0	0
			963	610	202	150	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	L21A	101	Total	C	N	O	S	0	0	0
			778	501	142	134	1			
43	L21B	101	Total	C	N	O	S	0	0	0
			778	501	142	134	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	L22A	113	Total	C	N	O	S	0	0	0
			899	566	177	154	2			
44	L22B	113	Total	C	N	O	S	0	0	0
			899	566	177	154	2			

- Molecule 45 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	L23A	93	Total	C	N	O	S	0	0	0
			738	480	133	124	1			
45	L23B	94	Total	C	N	O	S	0	0	0
			742	482	134	125	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	L24A	108	Total	C	N	O	S	0	0	0
			824	528	153	138	5			
46	L24B	106	Total	C	N	O	S	0	0	0
			775	494	147	129	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	L25A	179	Total	C	N	O	S	0	0	0
			1428	911	255	259	3			
47	L25B	176	Total	C	N	O	S	0	0	0
			1404	897	252	252	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	L27A	84	Total	C	N	O	S	0	0	0
			661	410	140	110	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	L27B	84	Total	C	N	O	S	0	0	0
			661	410	140	110	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	L28A	97	Total	C	N	O	S	0	0	0
			762	481	150	130	1			
49	L28B	97	Total	C	N	O	S	0	0	0
			762	481	150	130	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	L29A	69	Total	C	N	O	S	0	0	0
			583	363	117	101	2			
50	L29B	71	Total	C	N	O	S	0	0	0
			590	367	119	103	1			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	L30A	59	Total	C	N	O	0	0	0
			468	298	90	80			
51	L30B	59	Total	C	N	O	0	0	0
			468	298	90	80			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	L31A	71	Total	C	N	O	S	0	0	0
			580	364	108	103	5			
52	L31B	71	Total	C	N	O	S	0	0	0
			580	364	108	103	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	L32A	56	Total	C	N	O	S	0	0	0
			434	272	87	70	5			
53	L32B	56	Total	C	N	O	S	0	0	0
			434	272	87	70	5			

- Molecule 54 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	L33A	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
54	L33B	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

- Molecule 55 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	L34A	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
55	L34B	49	Total	C	N	O	S	0	0	0
			429	263	108	56	2			

- Molecule 56 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	L35A	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			
56	L35B	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			

- Molecule 57 is a RNA chain called Phe-tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
57	ASIB	76	Total	C	N	O	P	S	0	0	0
			1627	730	290	531	75	1			

- Molecule 58 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	16SA	92	Total	Mg	0	0
			92	92		
58	S4A	1	Total	Mg	0	0
			1	1		
58	PSIA	2	Total	Mg	0	0
			2	2		
58	23SA	332	Total	Mg	0	0
			332	332		
58	5SA	6	Total	Mg	0	0
			6	6		

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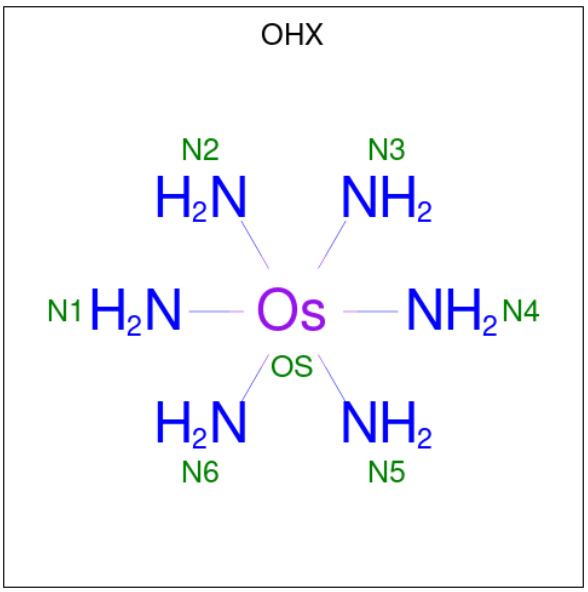
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	L3A	2	Total Mg 2 2	0	0
58	L4A	2	Total Mg 2 2	0	0
58	L5A	1	Total Mg 1 1	0	0
58	L15A	2	Total Mg 2 2	0	0
58	L23A	1	Total Mg 1 1	0	0
58	L27A	2	Total Mg 2 2	0	0
58	L30A	1	Total Mg 1 1	0	0
58	L32A	1	Total Mg 1 1	0	0
58	L33A	1	Total Mg 1 1	0	0
58	L34A	1	Total Mg 1 1	0	0
58	L35A	1	Total Mg 1 1	0	0
58	16SB	85	Total Mg 86 86	0	1
58	S5B	1	Total Mg 1 1	0	0
58	PSIB	3	Total Mg 3 3	0	0
58	23SB	240	Total Mg 241 241	0	1
58	5SB	4	Total Mg 4 4	0	0
58	L3B	2	Total Mg 2 2	0	0
58	L4B	1	Total Mg 1 1	0	0
58	L5B	1	Total Mg 1 1	0	0
58	L15B	1	Total Mg 1 1	0	0
58	L35B	2	Total Mg 2 2	0	0

- Molecule 59 is osmium (III) hexammine (three-letter code: OHX) (formula: $H_{12}N_6Os$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
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59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
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59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
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59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
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59	16SA	1	Total N Os 7 6 1	0	0
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59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	16SA	1	Total N Os 7 6 1	0	0
59	S4A	1	Total N Os 7 6 1	0	0
59	S10A	1	Total N Os 7 6 1	0	0
59	S19A	1	Total N Os 7 6 1	0	0
59	ASIA	1	Total N Os 7 6 1	0	0
59	ASIA	1	Total N Os 7 6 1	0	0
59	ASIA	1	Total N Os 7 6 1	0	0
59	PSIA	1	Total N Os 7 6 1	0	0
59	ESIA	1	Total N Os 7 6 1	0	0
59	MRNA	1	Total N Os 7 6 1	0	0
59	TRNA	1	Total N Os 7 6 1	0	0
59	TRNA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	23SA	1	Total N Os 7 6 1	0	0
59	5SA	1	Total N Os 7 6 1	0	0
59	5SA	1	Total N Os 7 6 1	0	0
59	5SA	1	Total N Os 7 6 1	0	0
59	5SA	1	Total N Os 7 6 1	0	0
59	5SA	1	Total N Os 7 6 1	0	0
59	5SA	1	Total N Os 7 6 1	0	0
59	5SA	1	Total N Os 7 6 1	0	0
59	5SA	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	5SA	1	Total N Os 7 6 1	0	0
59	L4A	1	Total N Os 7 6 1	0	0
59	L15A	1	Total N Os 7 6 1	0	0
59	L17A	1	Total N Os 7 6 1	0	0
59	L19A	1	Total N Os 7 6 1	0	0
59	L20A	1	Total N Os 7 6 1	0	0
59	L27A	1	Total N Os 7 6 1	0	0
59	L27A	1	Total N Os 7 6 1	0	0
59	L28A	1	Total N Os 7 6 1	0	0
59	L35A	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	16SB	1	Total N Os 7 6 1	0	0
59	S4B	1	Total N Os 7 6 1	0	0
59	S14B	1	Total N Os 7 6 1	0	0
59	ASIB	1	Total N Os 7 6 1	0	0
59	ASIB	1	Total N Os 7 6 1	0	0
59	ASIB	1	Total N Os 7 6 1	0	0
59	PSIB	1	Total N Os 7 6 1	0	0
59	PSIB	1	Total N Os 7 6 1	0	0
59	ESIB	1	Total N Os 7 6 1	0	0
59	MRNB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
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59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	23SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	5SB	1	Total N Os 7 6 1	0	0
59	L4B	1	Total N Os 7 6 1	0	0
59	L17B	1	Total N Os 7 6 1	0	0
59	L20B	1	Total N Os 7 6 1	0	0
59	L35B	1	Total N Os 7 6 1	0	0

- Molecule 60 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	16SA	46	Total K 46 46	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	S6A	1	Total K 1 1	0	0
60	S13A	1	Total K 1 1	0	0
60	S20A	1	Total K 1 1	0	0
60	PSIA	2	Total K 2 2	0	0
60	23SA	102	Total K 102 102	0	0
60	5SA	2	Total K 2 2	0	0
60	L2A	1	Total K 1 1	0	0
60	L3A	1	Total K 1 1	0	0
60	L4A	1	Total K 1 1	0	0
60	L5A	1	Total K 1 1	0	0
60	16SB	35	Total K 35 35	0	0
60	S4B	1	Total K 1 1	0	0
60	S6B	1	Total K 1 1	0	0
60	S13B	1	Total K 1 1	0	0
60	S14B	1	Total K 1 1	0	0
60	S20B	1	Total K 1 1	0	0
60	23SB	81	Total K 81 81	0	0
60	5SB	1	Total K 1 1	0	0
60	L2B	1	Total K 1 1	0	0
60	L3B	1	Total K 1 1	0	0
60	L4B	1	Total K 1 1	0	0

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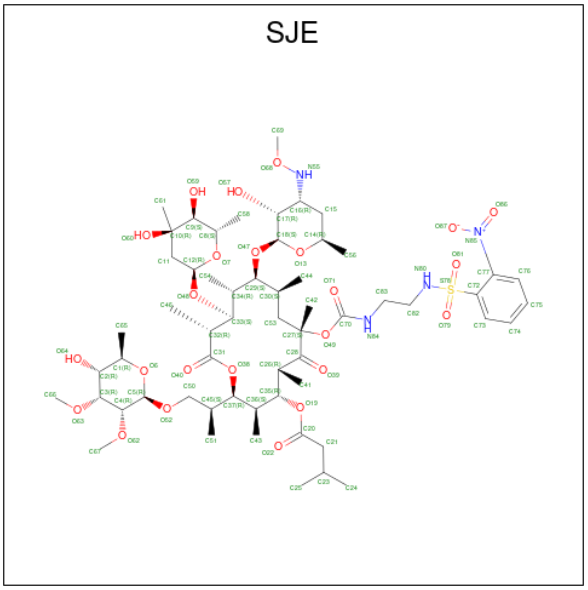
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	L5B	1	Total K 1 1	0	0
60	L15B	1	Total K 1 1	0	0
60	L16B	1	Total K 1 1	0	0

- Molecule 61 is (2R,3S,4R,5R,7S,9S,10S,11R,12S,13R)-12-(((2R,4R,5S,6S)-4,5-dihydroxy-4,6-dimethyltetrahydro-2H-pyran-2-yl)oxy)-2-((S)-1-(((2R,3R,4R,5R,6R)-5-hydroxy-3,4-dimethoxy-6-methyltetrahydro-2H-pyran-2-yl)oxy)propan-2-yl)-10-(((2S,3R,4R,6R)-3-hydroxy-4-(methoxyamino)-6-methyltetrahydro-2H-pyran-2-yl)oxy)-3,5,7,9,11,13-hexamethyl-7-((2-((2-nitrophenyl)sulfonamido)ethyl)carbamoyl)oxy)-6,14-dioxooxacyclotetradecan-4-yl 3-methylbutanoate (three-letter code: SJE) (formula: $C_{58}H_{96}N_4O_{24}S$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	23SA	1	Total C N O S 87 58 4 24 1	0	0
61	23SB	1	Total C N O S 87 58 4 24 1	0	0

- Molecule 62 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	16SA	172	Total O 172 172	0	0
62	S4A	3	Total O 3 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	S5A	1	Total O 1 1	0	0
62	S12A	1	Total O 1 1	0	0
62	S13A	1	Total O 1 1	0	0
62	S14A	1	Total O 1 1	0	0
62	S16A	1	Total O 1 1	0	0
62	THXA	3	Total O 3 3	0	0
62	PSIA	7	Total O 7 7	0	0
62	ESIA	1	Total O 1 1	0	0
62	23SA	788	Total O 788 788	0	0
62	5SA	14	Total O 14 14	0	0
62	L2A	10	Total O 10 10	0	0
62	L3A	7	Total O 7 7	0	0
62	L4A	6	Total O 6 6	0	0
62	L15A	9	Total O 9 9	0	0
62	L16A	1	Total O 1 1	0	0
62	L17A	2	Total O 2 2	0	0
62	L18A	2	Total O 2 2	0	0
62	L19A	1	Total O 1 1	0	0
62	L23A	1	Total O 1 1	0	0
62	L27A	3	Total O 3 3	0	0
62	L30A	1	Total O 1 1	0	0

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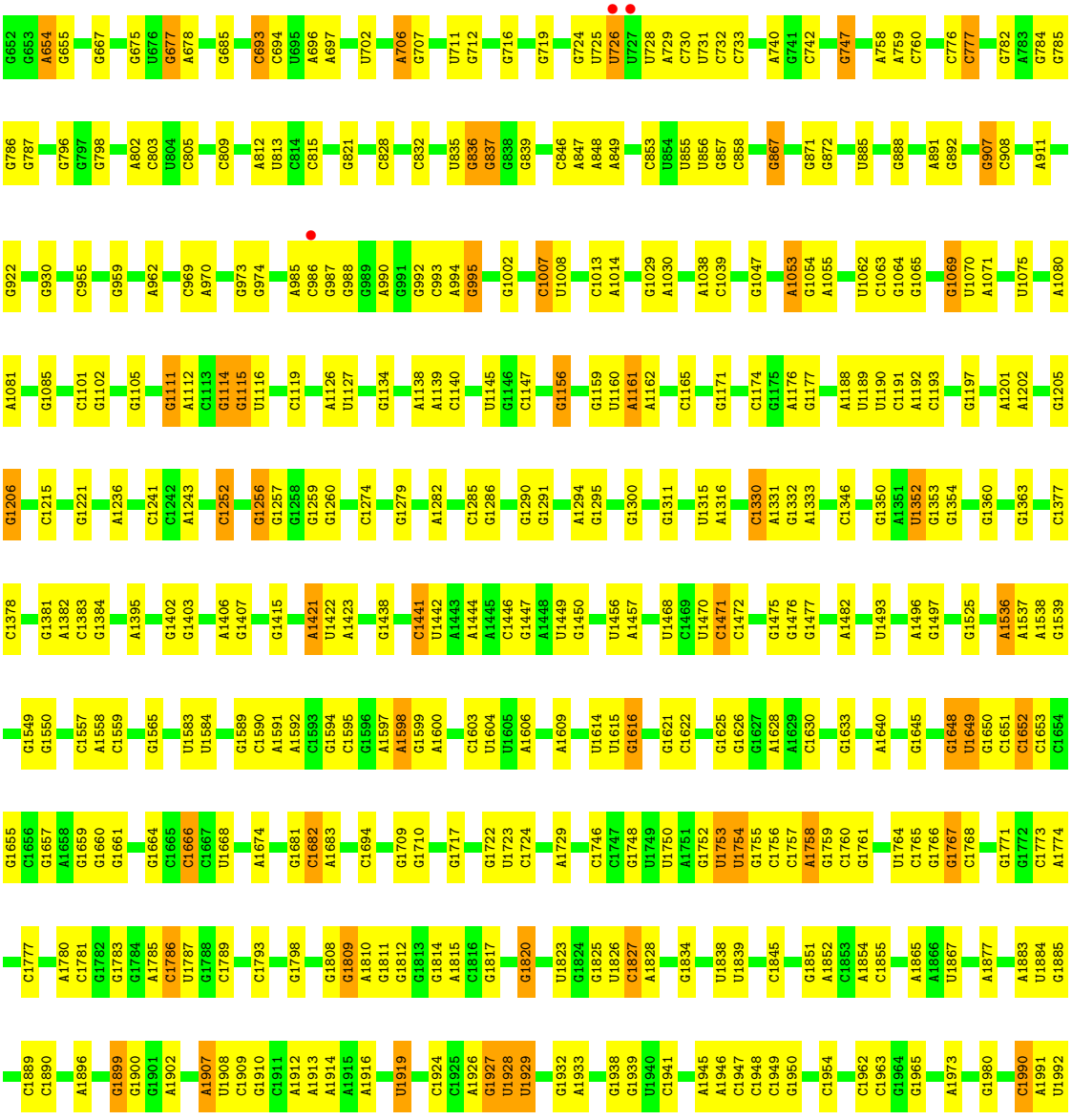
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	L34A	1	Total O 1 1	0	0
62	L35A	1	Total O 1 1	0	0
62	16SB	157	Total O 157 157	0	0
62	S4B	2	Total O 2 2	0	0
62	S5B	1	Total O 1 1	0	0
62	S9B	1	Total O 1 1	0	0
62	S12B	2	Total O 2 2	0	0
62	S14B	2	Total O 2 2	0	0
62	23SB	519	Total O 519 519	0	0
62	5SB	5	Total O 5 5	0	0
62	L2B	12	Total O 12 12	0	0
62	L3B	6	Total O 6 6	0	0
62	L4B	1	Total O 1 1	0	0
62	L15B	7	Total O 7 7	0	0
62	L19B	1	Total O 1 1	0	0
62	L27B	2	Total O 2 2	0	0
62	L28B	1	Total O 1 1	0	0
62	L30B	1	Total O 1 1	0	0
62	L35B	6	Total O 6 6	0	0

3 Residue-property plots (i)

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

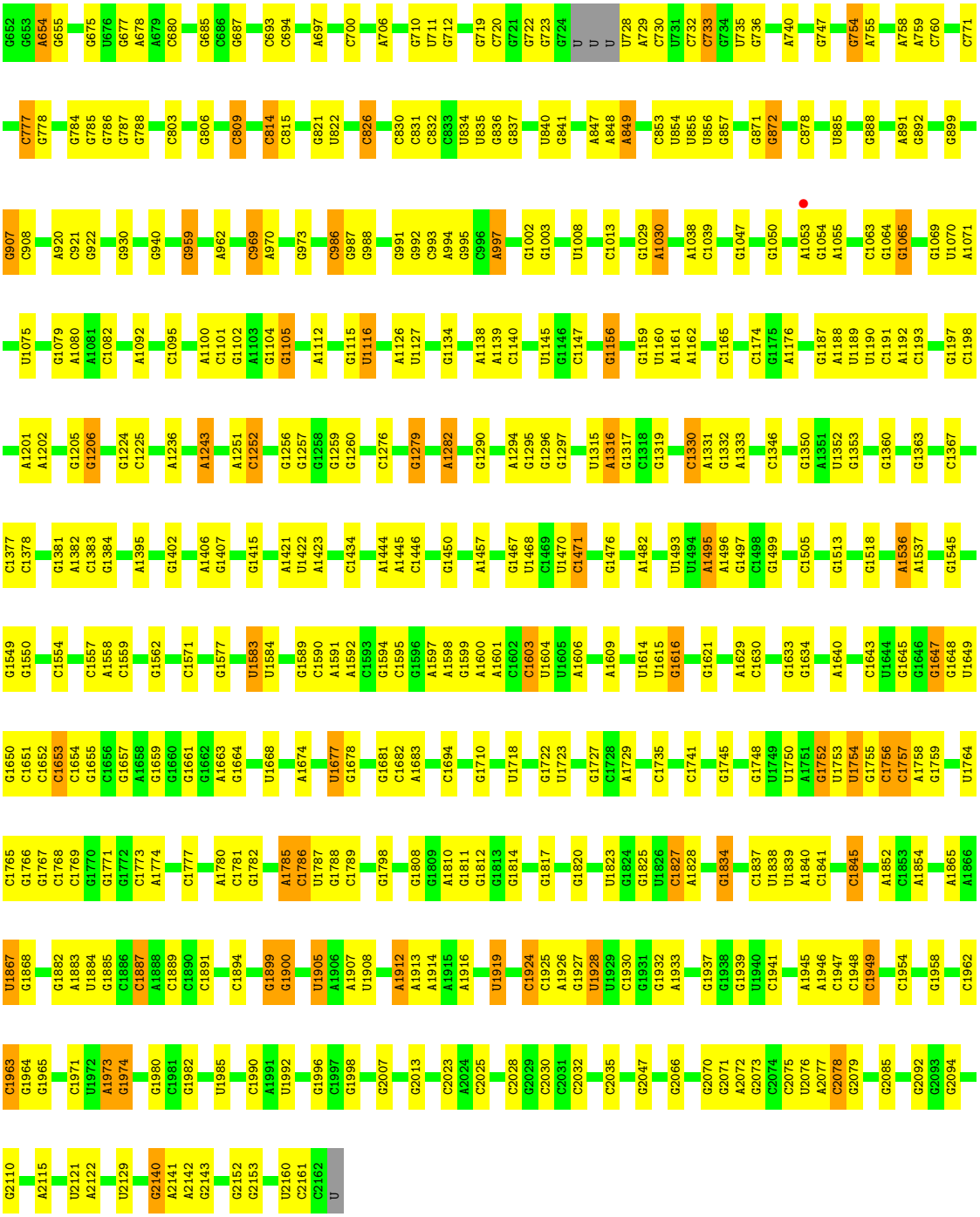
- Molecule 1: 16S rRNA

Chain 16SA:



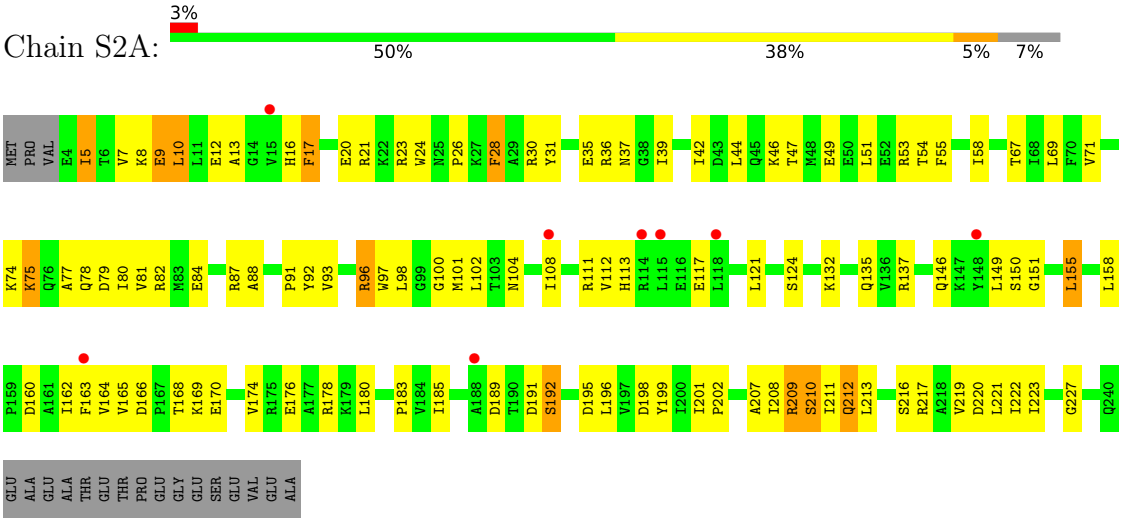
• Molecule 1: 16S rRNA

Chain 16SB:



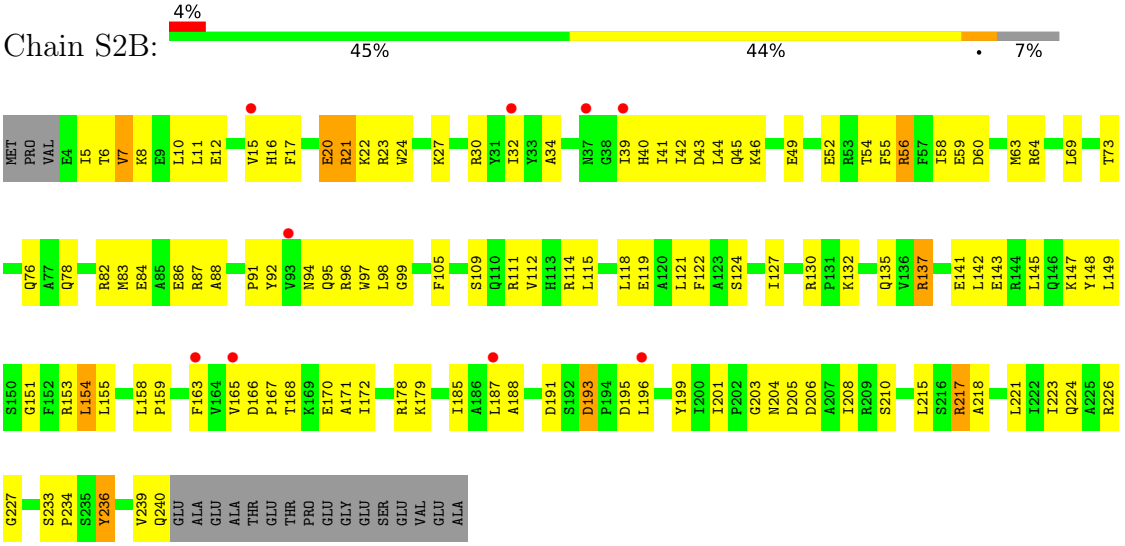
• Molecule 2: 30S ribosomal protein S2

Chain S2A:



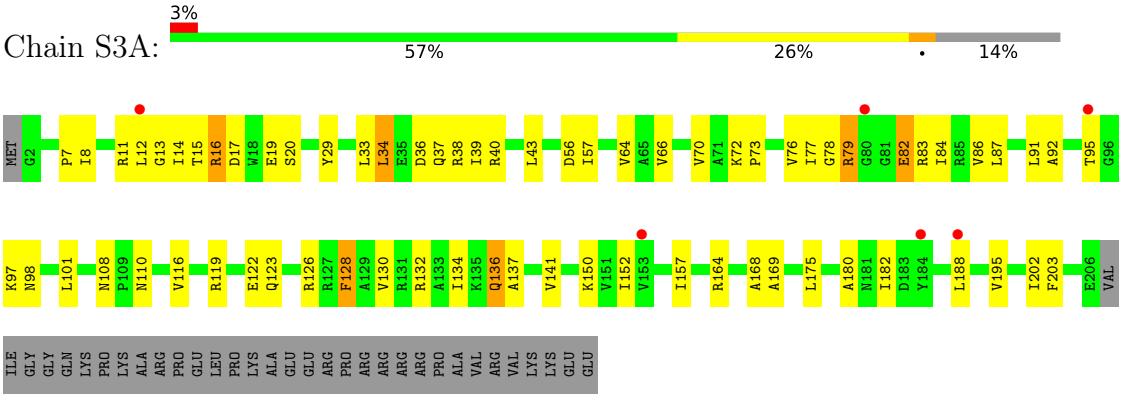
• Molecule 2: 30S ribosomal protein S2

Chain S2B:



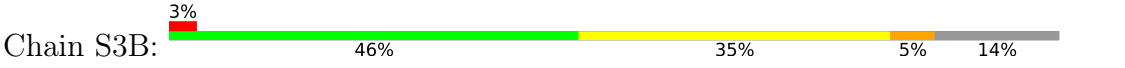
• Molecule 3: 30S ribosomal protein S3

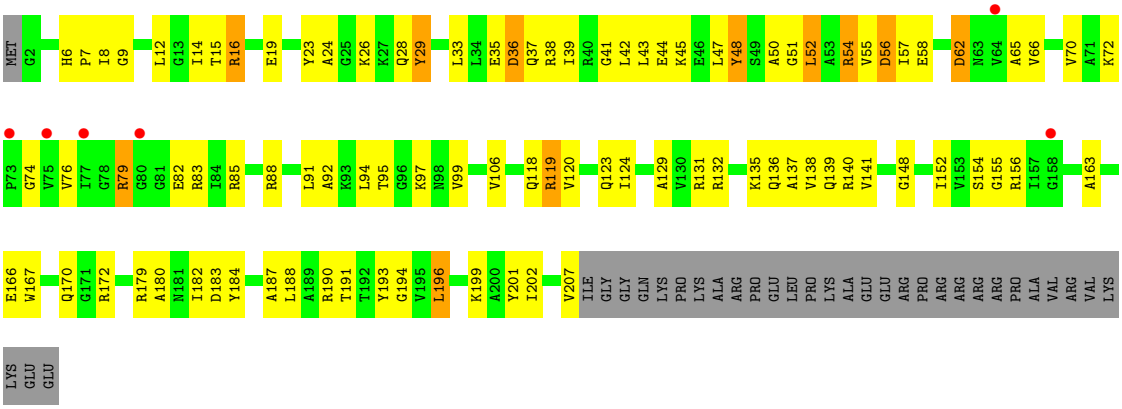
Chain S3A:



• Molecule 3: 30S ribosomal protein S3

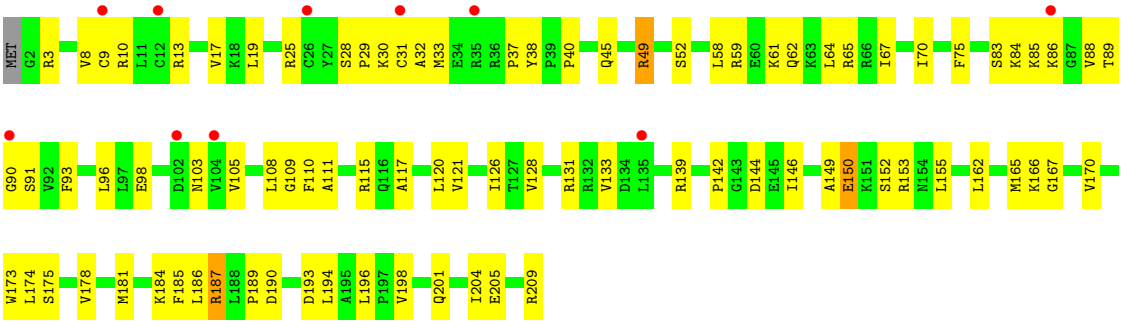
Chain S3B:





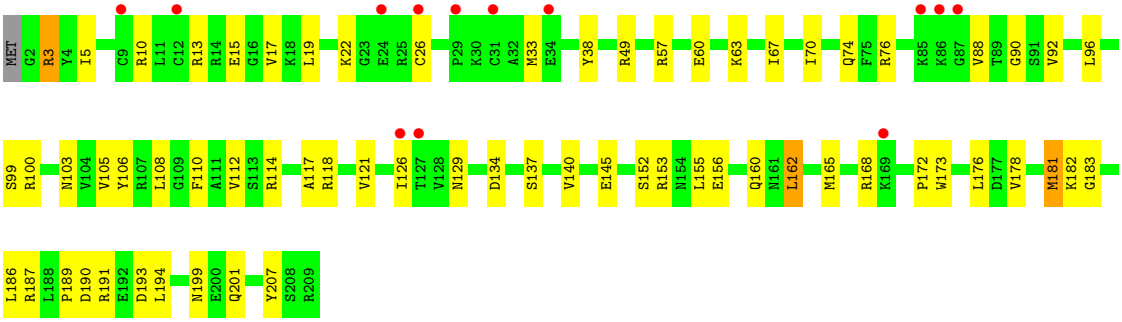
• Molecule 4: 30S ribosomal protein S4

Chain S4A:



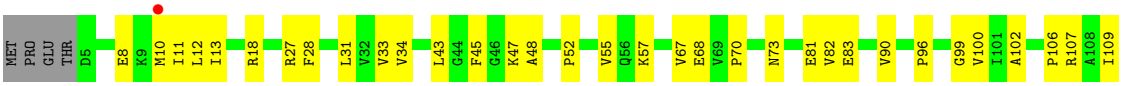
• Molecule 4: 30S ribosomal protein S4

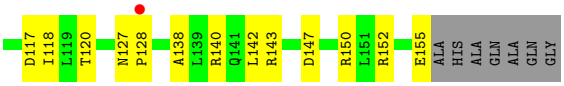
Chain S4B:



• Molecule 5: 30S ribosomal protein S5

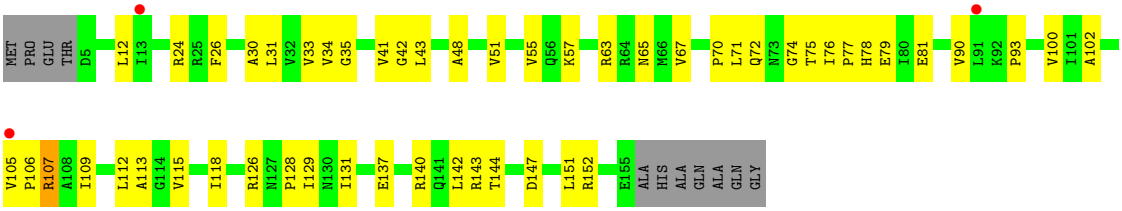
Chain S5A:





• Molecule 5: 30S ribosomal protein S5

Chain S5B:

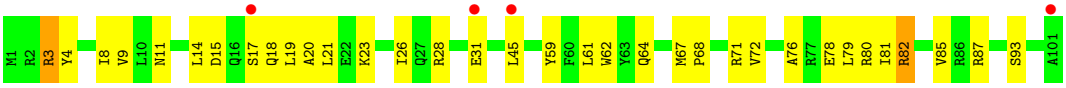


• Molecule 6: 30S ribosomal protein S6

Chain S6A:

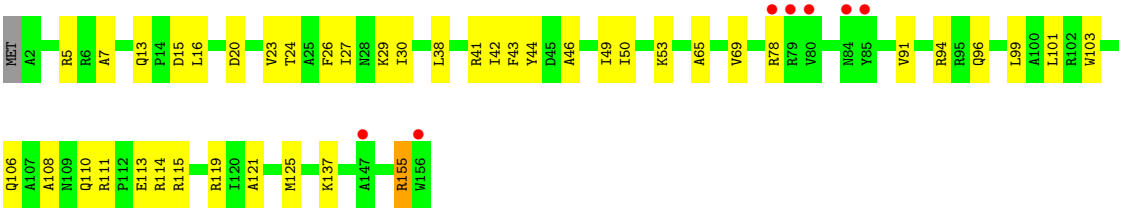
• Molecule 6: 30S ribosomal protein S6

Chain S6B:



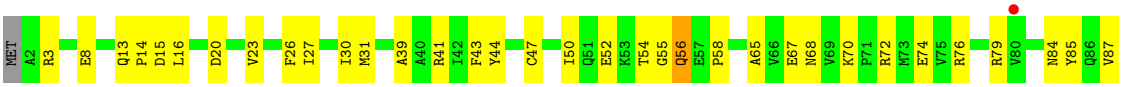
• Molecule 7: 30S ribosomal protein S7

Chain S7A:



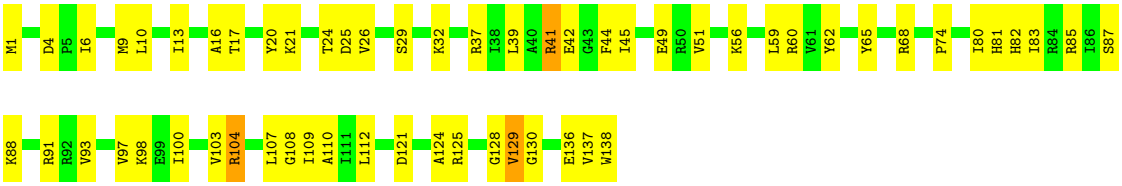
• Molecule 7: 30S ribosomal protein S7

Chain S7B:



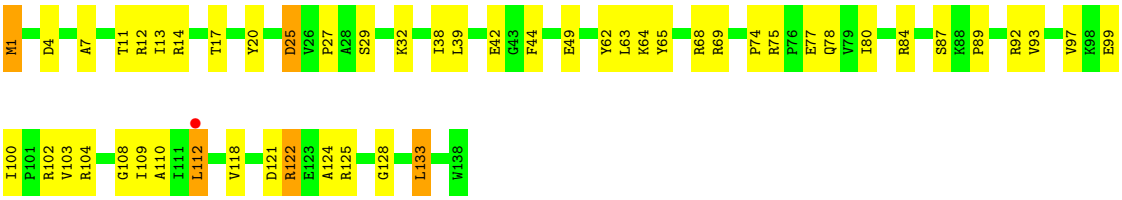
• Molecule 8: 30S ribosomal protein S8

Chain S8A:



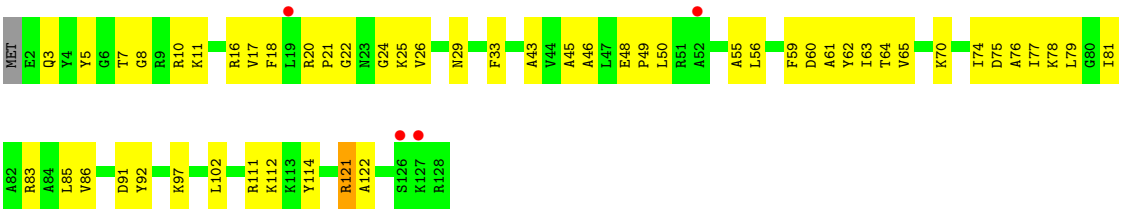
• Molecule 8: 30S ribosomal protein S8

Chain S8B:



• Molecule 9: 30S ribosomal protein S9

Chain S9A:

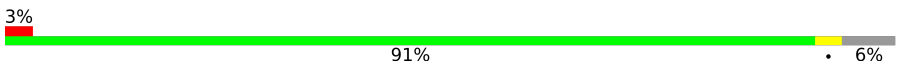


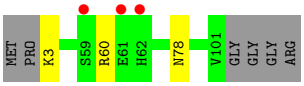
• Molecule 9: 30S ribosomal protein S9

Chain S9B:

• Molecule 10: 30S ribosomal protein S10

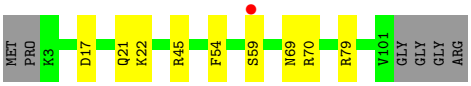
Chain S10A:





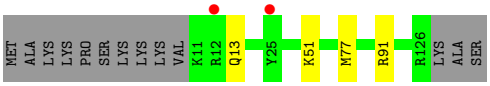
• Molecule 10: 30S ribosomal protein S10

Chain S10B:



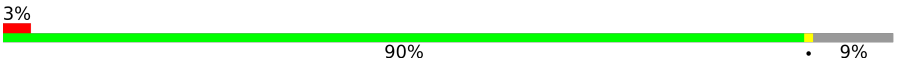
• Molecule 11: 30S ribosomal protein S11

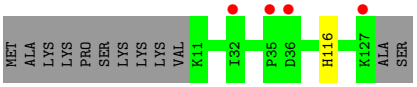
Chain S11A:



• Molecule 11: 30S ribosomal protein S11

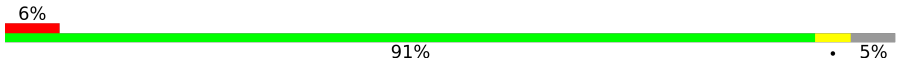
Chain S11B:

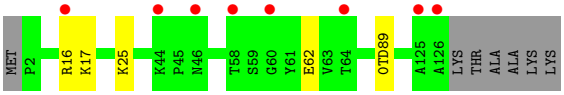




• Molecule 12: 30S ribosomal protein S12

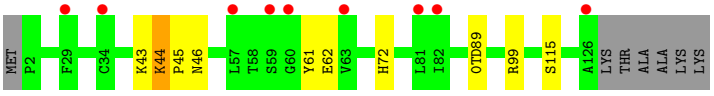
Chain S12A:





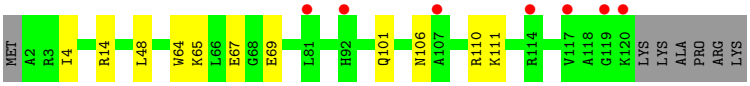
• Molecule 12: 30S ribosomal protein S12

Chain S12B:



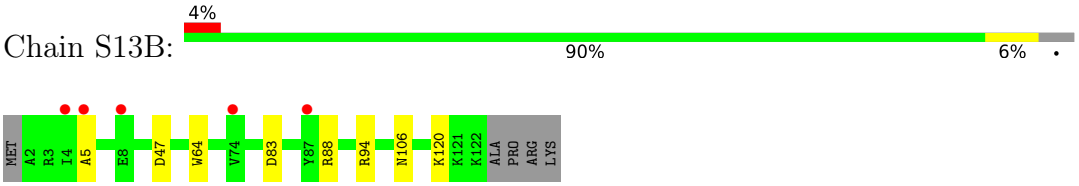
• Molecule 13: 30S ribosomal protein S13

Chain S13A:



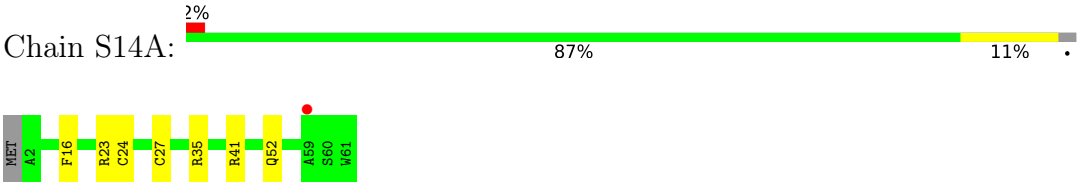
• Molecule 13: 30S ribosomal protein S13

Chain S13B:



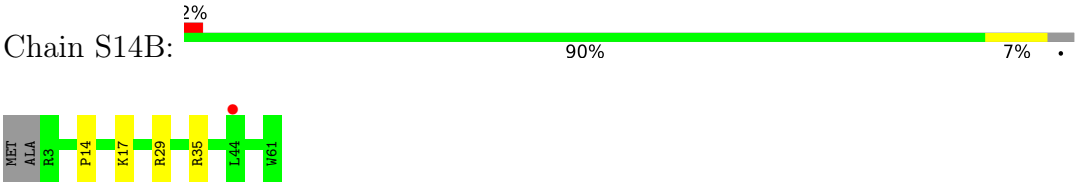
• Molecule 14: 30S ribosomal protein S14 type Z

Chain S14A:



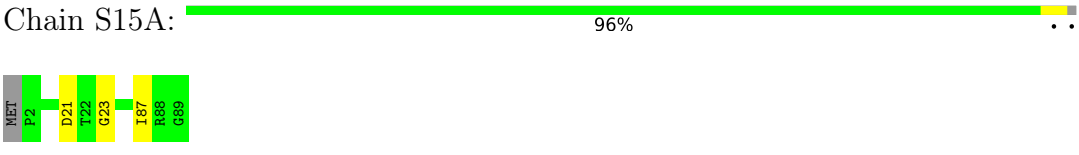
• Molecule 14: 30S ribosomal protein S14 type Z

Chain S14B:



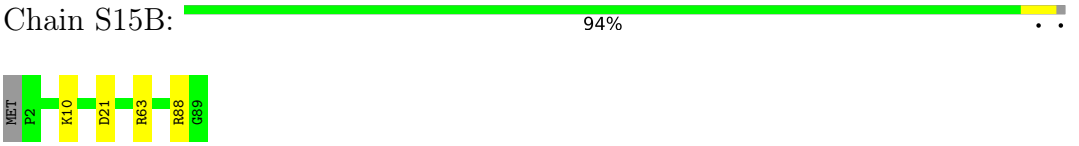
• Molecule 15: 30S ribosomal protein S15

Chain S15A:



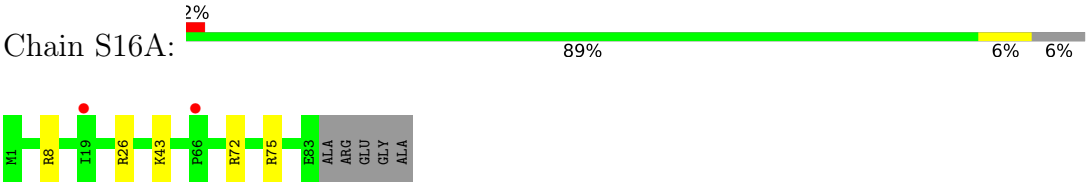
• Molecule 15: 30S ribosomal protein S15

Chain S15B:



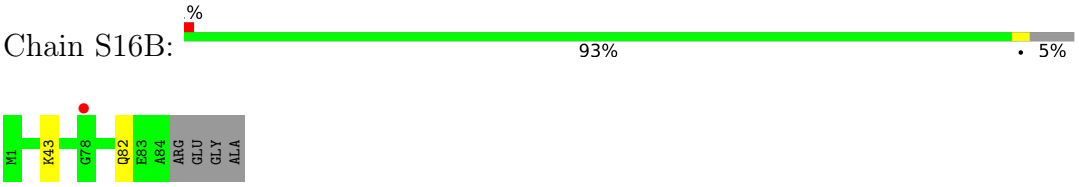
• Molecule 16: 30S ribosomal protein S16

Chain S16A:



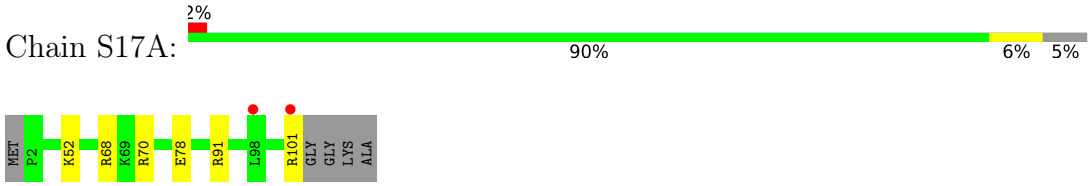
• Molecule 16: 30S ribosomal protein S16

Chain S16B:



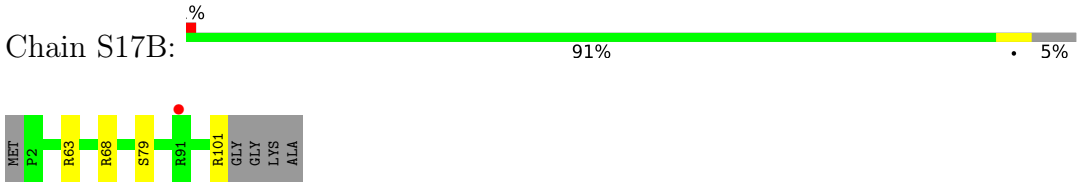
• Molecule 17: 30S ribosomal protein S17

Chain S17A:



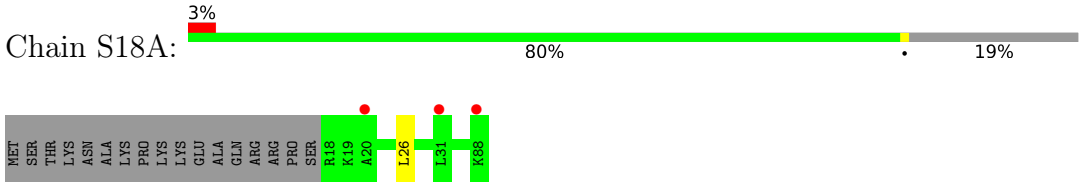
• Molecule 17: 30S ribosomal protein S17

Chain S17B:



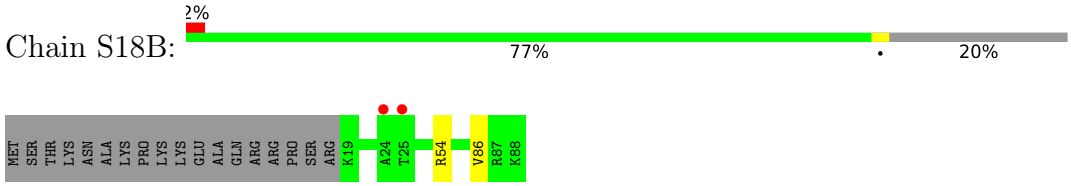
• Molecule 18: 30S ribosomal protein S18

Chain S18A:



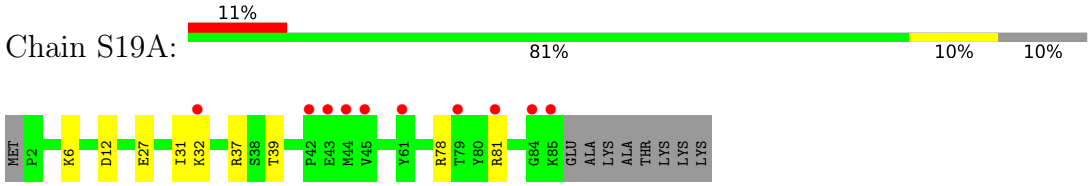
• Molecule 18: 30S ribosomal protein S18

Chain S18B:



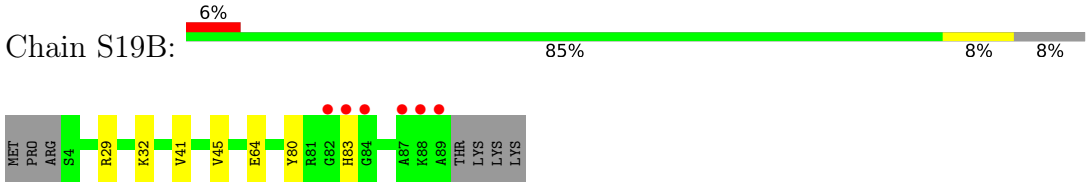
• Molecule 19: 30S ribosomal protein S19

Chain S19A:



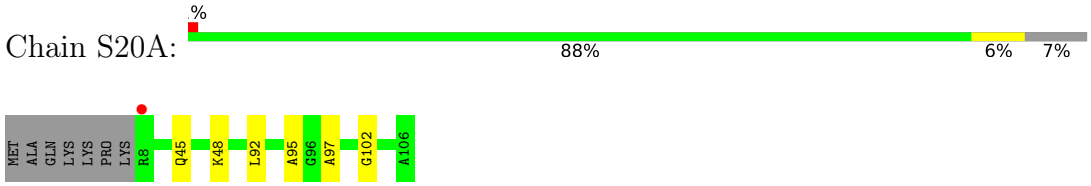
• Molecule 19: 30S ribosomal protein S19

Chain S19B:



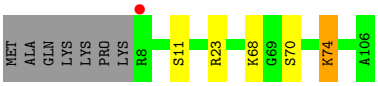
• Molecule 20: 30S ribosomal protein S20

Chain S20A:



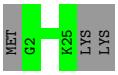
• Molecule 20: 30S ribosomal protein S20

Chain S20B:



• Molecule 21: 30S ribosomal protein Thx

Chain THXA:



• Molecule 21: 30S ribosomal protein Thx

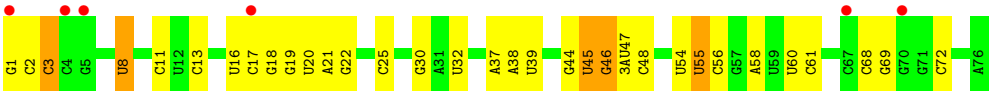
Chain THXB:

• Molecule 22: Phe-tRNA

Chain ASIA:

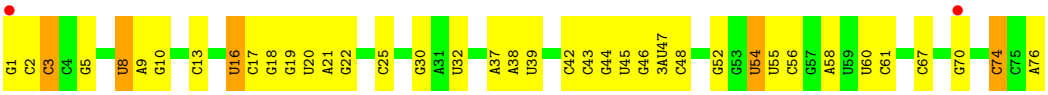
• Molecule 23: Phe-tRNA

Chain PSIA:



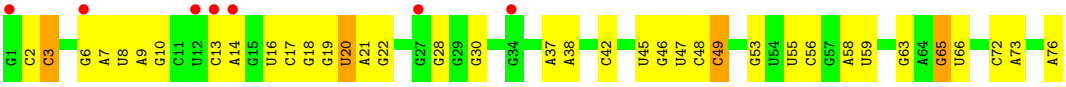
• Molecule 23: Phe-tRNA

Chain PSIB:



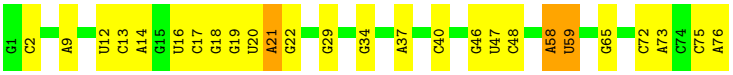
• Molecule 24: Phe-tRNA

Chain ESIA:



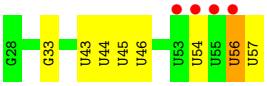
• Molecule 24: Phe-tRNA

Chain ESIB:



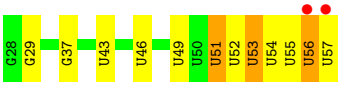
• Molecule 25: RNA (30-MER)

Chain MRNA:



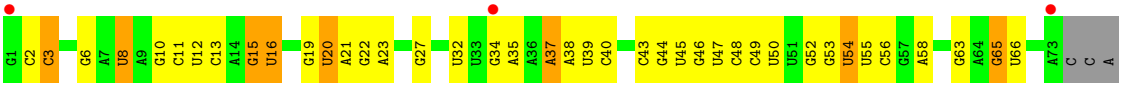
• Molecule 25: RNA (30-MER)

Chain MRNB:



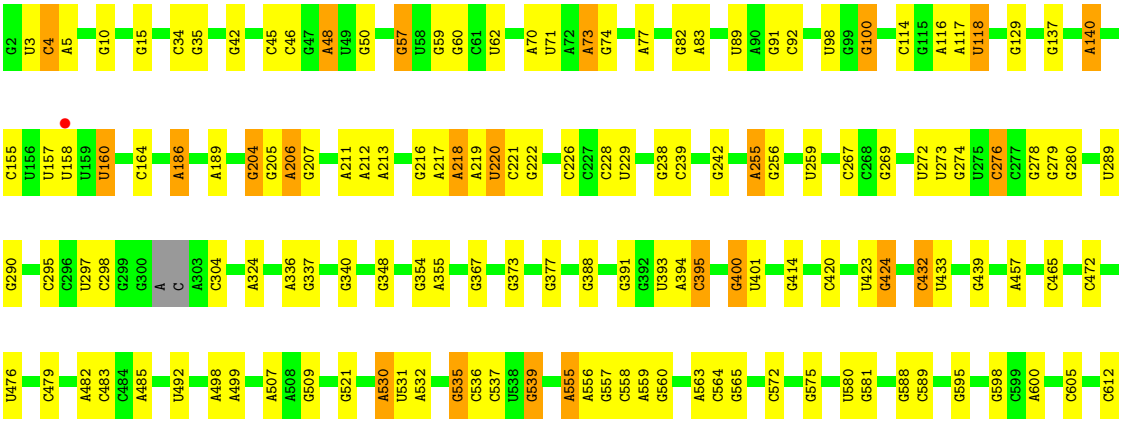
• Molecule 26: Phe-tRNA

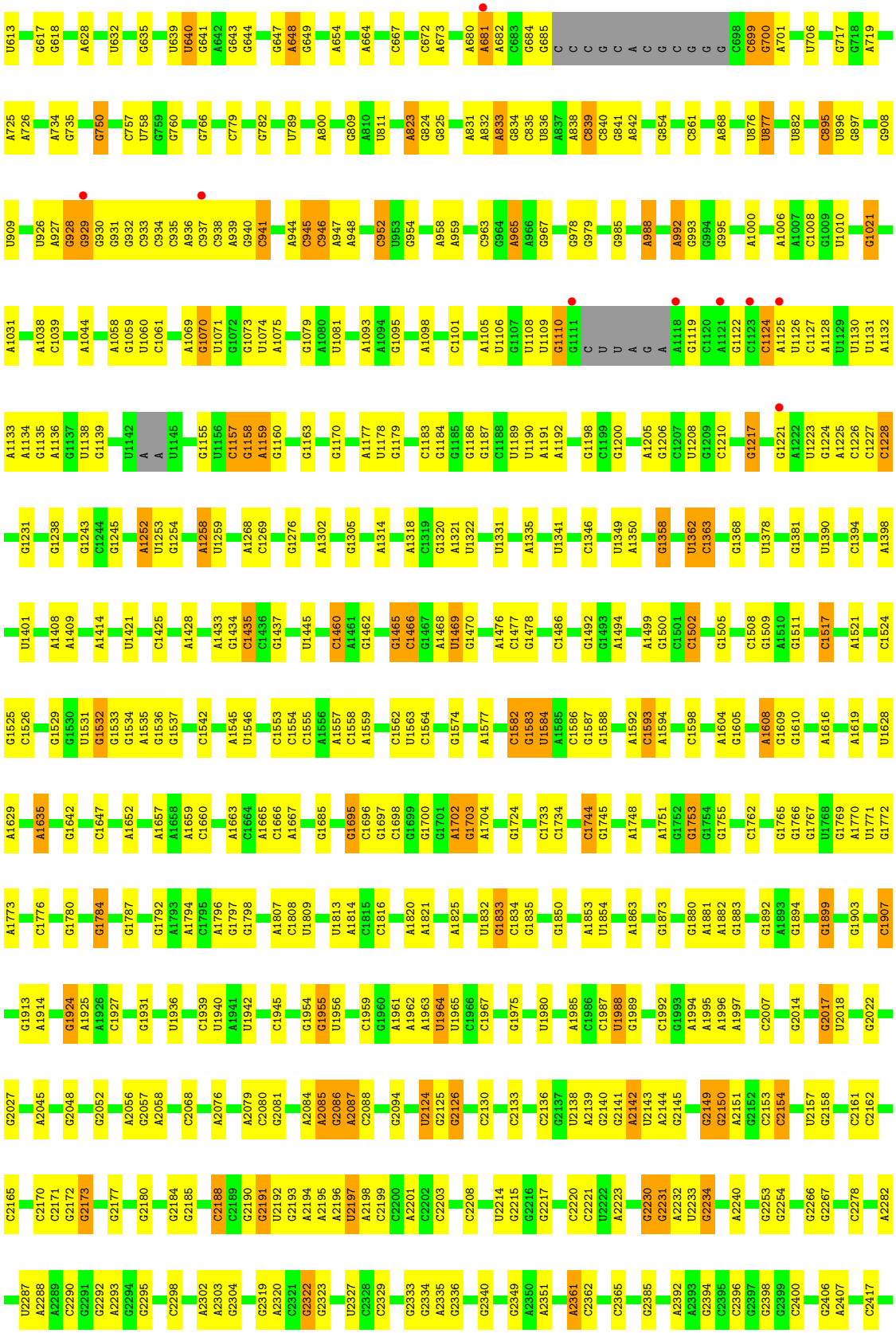
Chain TRNA:



• Molecule 27: 23S rRNA

Chain 23SA:

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U909 U926 A927 G928 G929 G930 G931 G932 C933 C934 C935 A936 C937 C938 A939 G940 C941 A944 C945 C946 A947 A948 C952 U953 G954 A958 A959 C963 G964 A965 A966 G967 G978 G979 G985 A988 A992 G993 G994 G995 A1000 A1006 A1007 C1008 G1009 U1010 G1021
A1031 A1038 C1039 A1044 A1058 G1059 U1060 C1061 A1069 G1070 U1071 G1072 G1073 U1074 A1075 G1079 A1080 U1081 A1093 A1094 G1095 A1098 C1101 A1105 U1106 G1107 U1108 U1109 G1110 G1111 C U U A G A A1118 G1119 C1120 A1121 G1122 C1123 C1124 A1125 U1126 C1127 A1128 U1129 U1130 U1131 A1132
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G1231 G1238 G1243 C1244 G1245 A1252 U1253 G1254 A1258 U1259 A1268 C1269 G1276 A1302 G1305 A1314 A1318 C1319 G1320 A1321 U1322 U1331 A1335 U1341 C1346 U1349 A1350 G1358 U1362 C1363 G1368 U1378 G1381 U1390 C1394 A1398
U1401 A1408 A1409 A1414 U1421 C1425 A1428 A1433 G1434 C1435 C1436 G1437 U1445 C1460 A1461 G1462 G1465 C1466 G1467 A1468 U1469 G1470 A1476 C1477 G1478 C1486 G1492 G1493 A1494 A1499 G1500 C1501 C1502 G1505 C1508 G1509 A1510 G1511 C1517 A1521 C1524
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A1629 A1635 G1642 C1647 A1652 A1657 A1658 A1659 C1660 A1663 C1664 A1665 C1666 A1667 G1685 G1695 C1696 G1697 C1698 G1699 G1700 G1701 A1702 G1703 A1704 G1724 C1733 C1734 C1744 G1745 A1748 A1751 G1752 G1753 G1754 G1755 C1762 G1765 G1766 G1767 U1768 G1769 A1770 U1771 G1772
A1773 C1776 G1780 G1784 G1787 G1792 A1793 A1794 C1795 A1796 G1797 G1798 A1807 C1808 U1809 U1813 A1814 C1815 C1816 A1820 A1821 A1825 U1832 G1833 C1834 G1835 G1850 A1853 U1854 A1863 G1873 G1880 A1881 A1882 G1883 C1892 A1893 G1894 G1899 G1903 C1907
G1913 A1914 G1924 A1925 A1926 C1927 G1931 U1936 C1939 U1940 A1941 U1942 C1945 G1954 G1955 U1956 C1959 G1960 A1961 A1962 A1963 U1964 U1965 C1966 C1967 G1975 U1980 A1985 C1986 C1987 U1988 G1989 C1992 G1993 A1994 A1995 A1996 A1997 C2007 G2014 G2017 U2018 G2022
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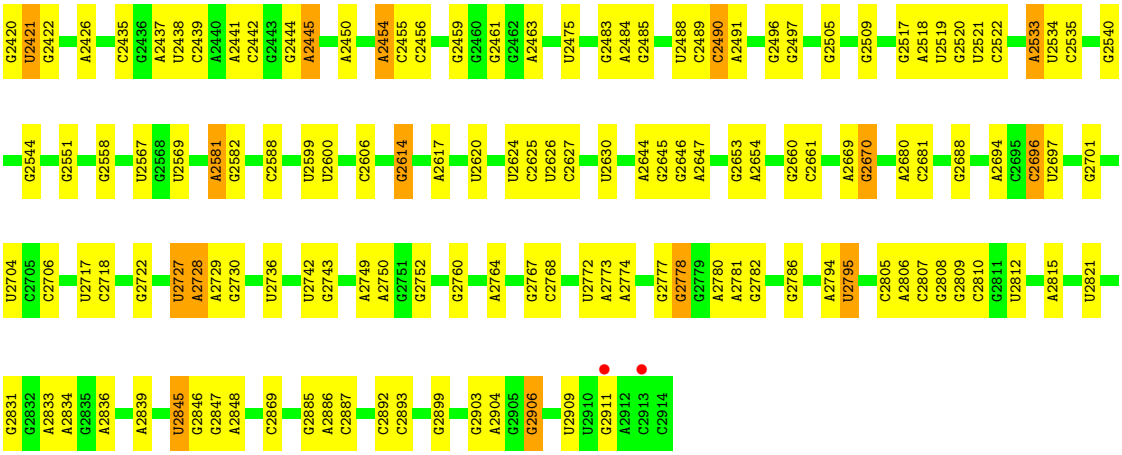
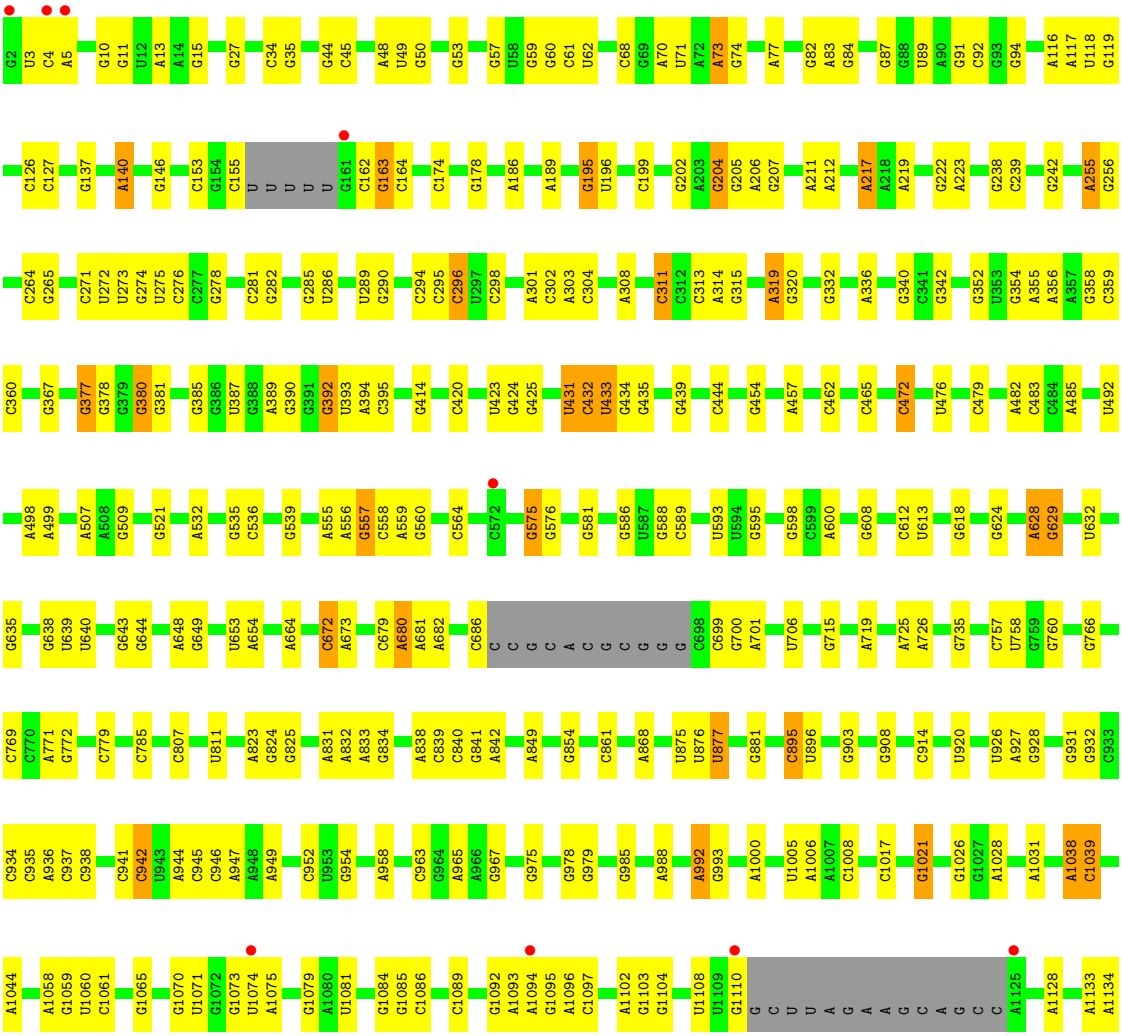
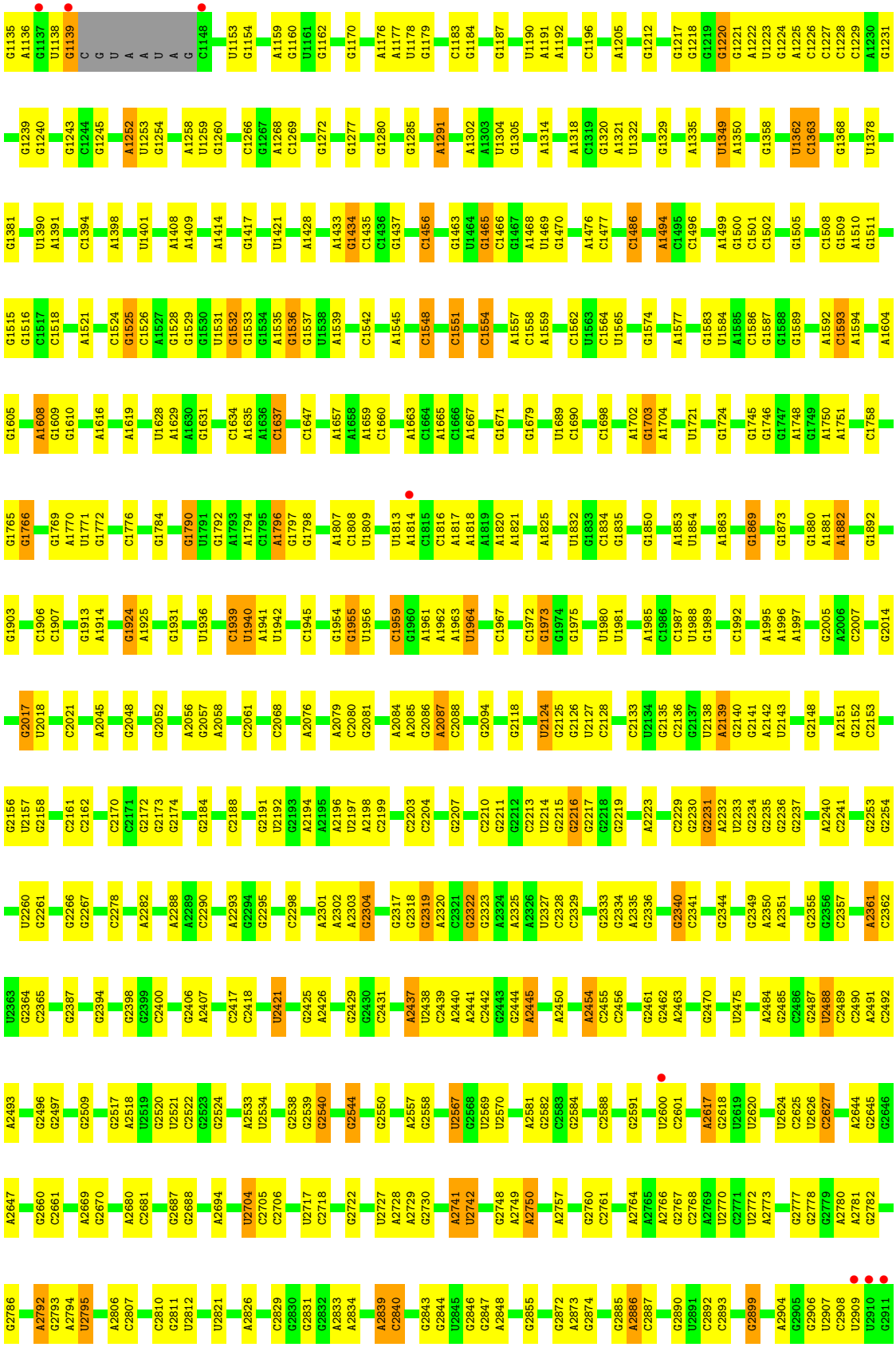


• Molecule 27: 23S rRNA

Chain 23SB:

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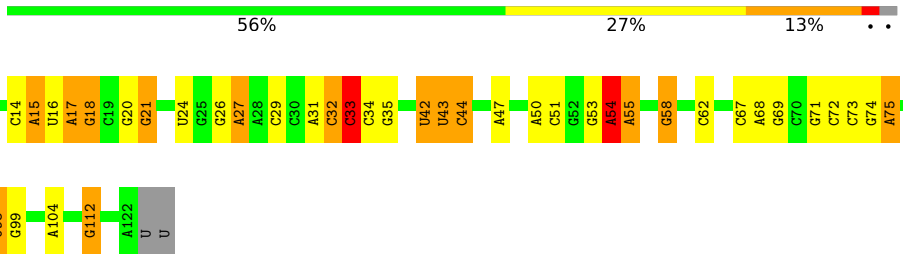
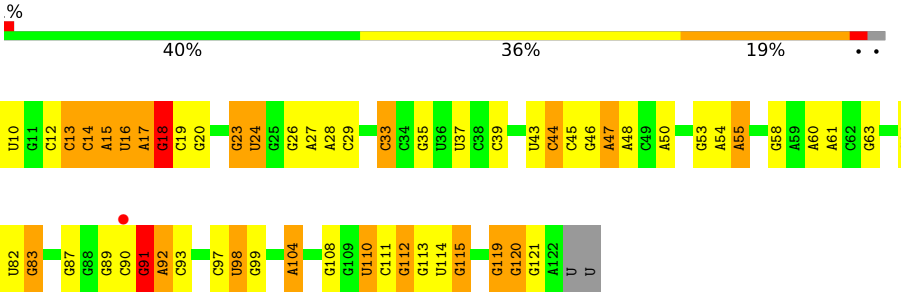
• Molecule 28: 5S rRNA

Chain 5SA:



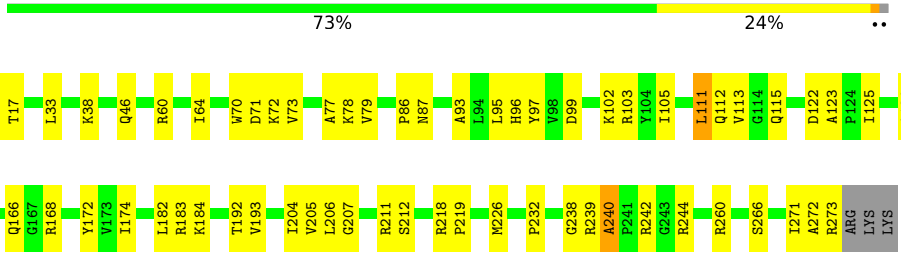
• Molecule 28: 5S rRNA

Chain 5SB:



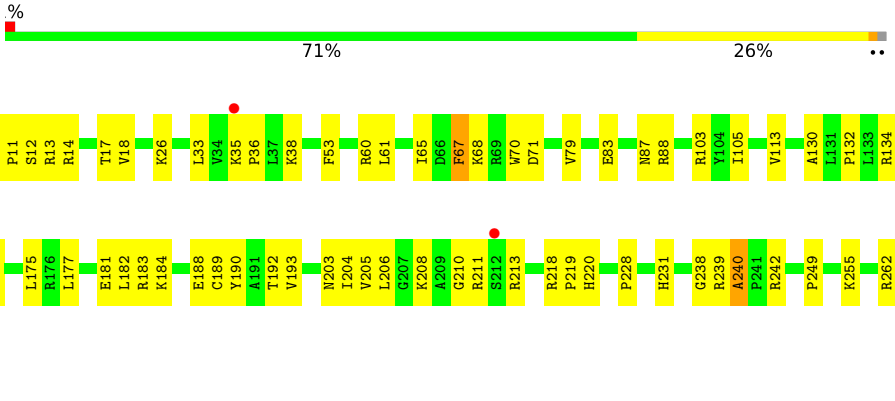
• Molecule 29: 50S ribosomal protein L2

Chain L2A:



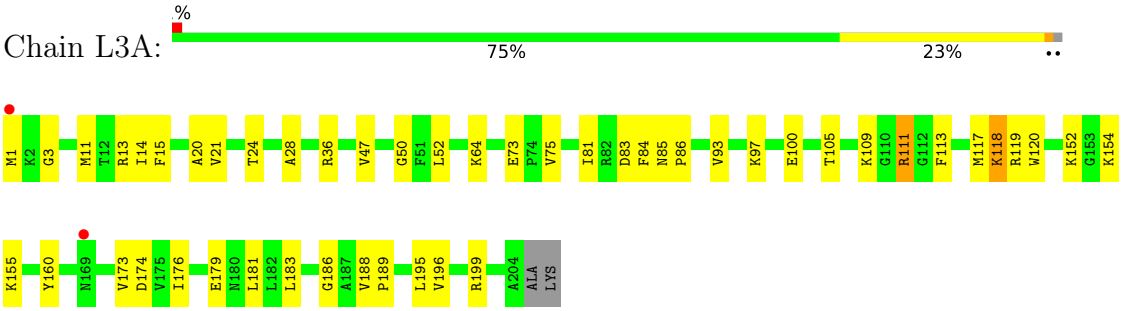
• Molecule 29: 50S ribosomal protein L2

Chain L2B:



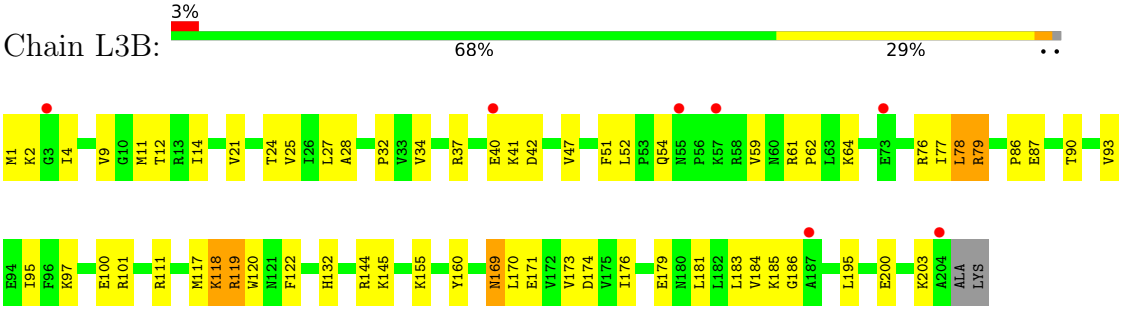
• Molecule 30: 50S ribosomal protein L3

Chain L3A:



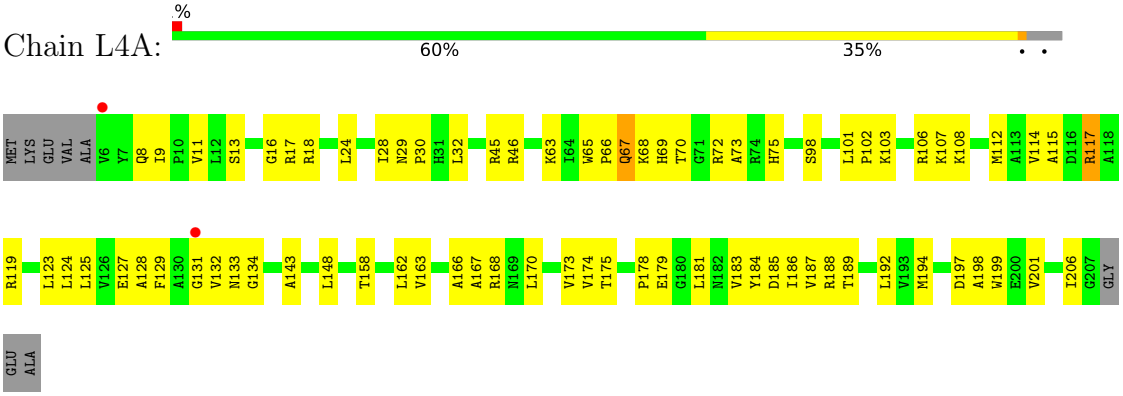
• Molecule 30: 50S ribosomal protein L3

Chain L3B:



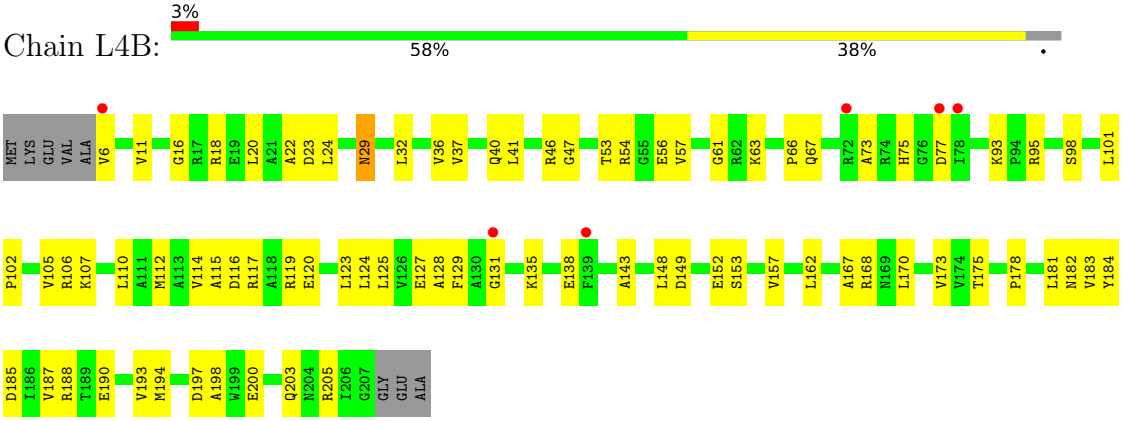
• Molecule 31: 50S ribosomal protein L4

Chain L4A:



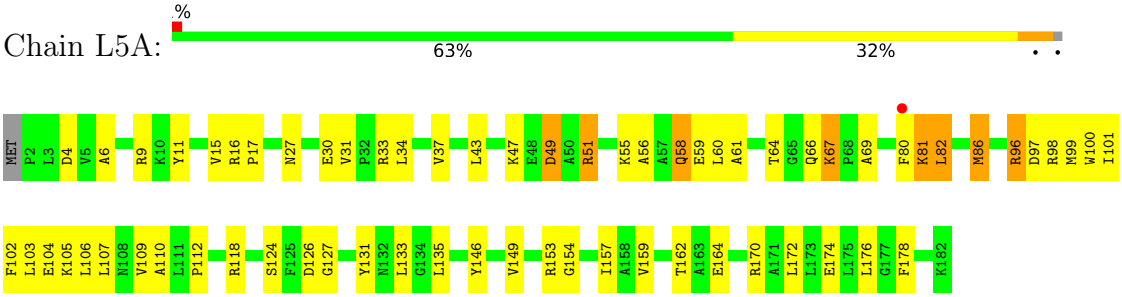
• Molecule 31: 50S ribosomal protein L4

Chain L4B:



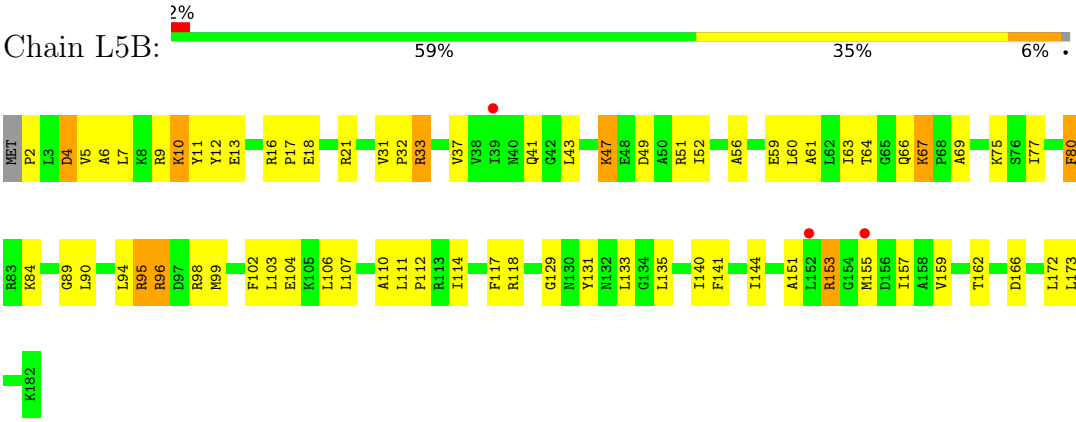
• Molecule 32: 50S ribosomal protein L5

Chain L5A:



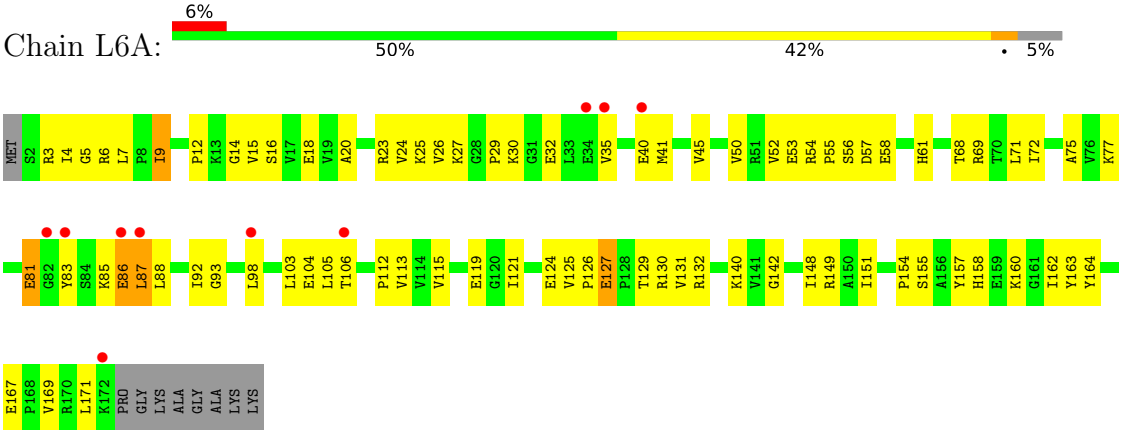
• Molecule 32: 50S ribosomal protein L5

Chain L5B:



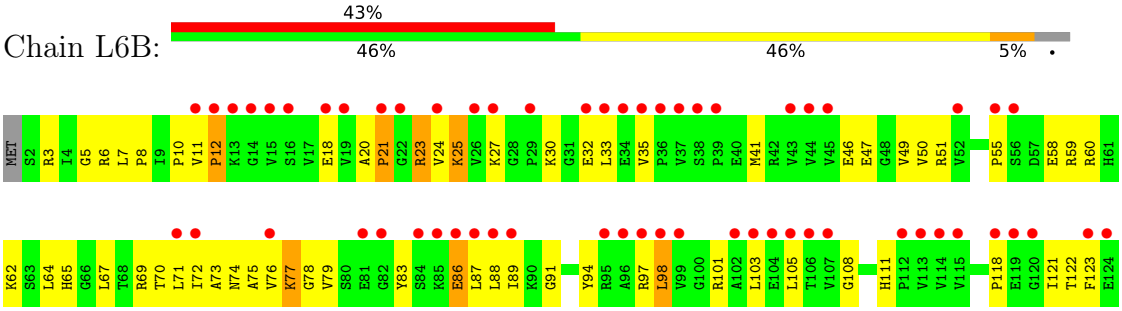
• Molecule 33: 50S ribosomal protein L6

Chain L6A:



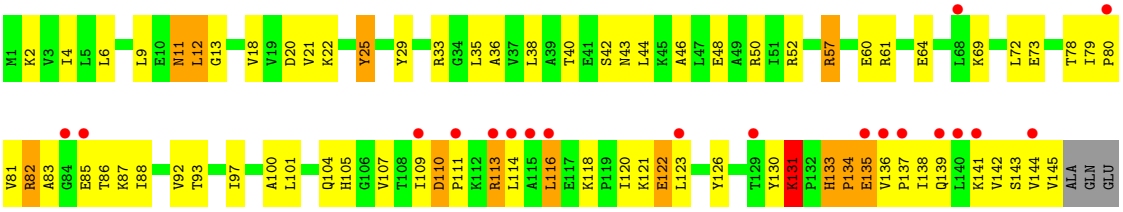
• Molecule 33: 50S ribosomal protein L6

Chain L6B:



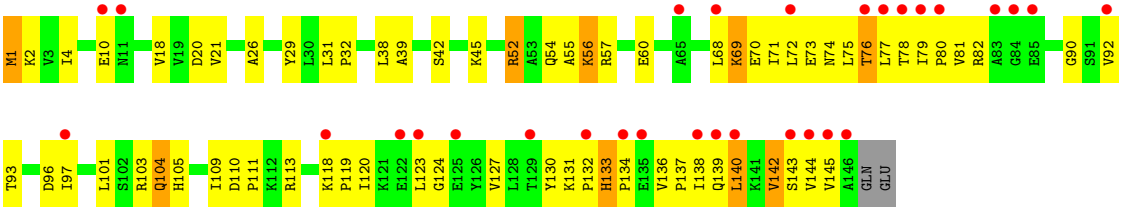
• Molecule 34: 50S ribosomal protein L9

Chain L9A:



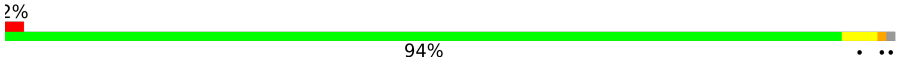
• Molecule 34: 50S ribosomal protein L9

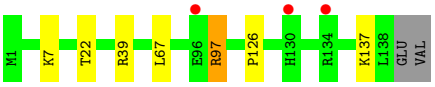
Chain L9B:



• Molecule 35: 50S ribosomal protein L13

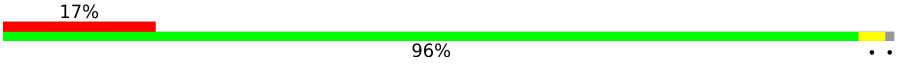
Chain L13A:

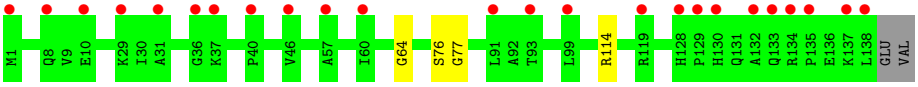




• Molecule 35: 50S ribosomal protein L13

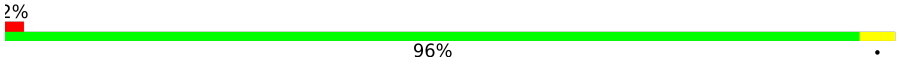
Chain L13B:





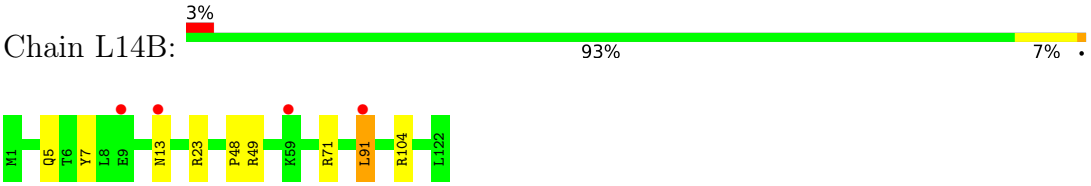
• Molecule 36: 50S ribosomal protein L14

Chain L14A:



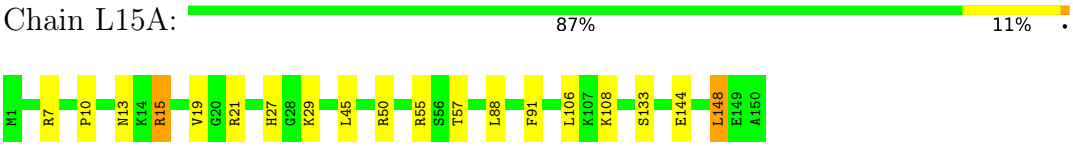
• Molecule 36: 50S ribosomal protein L14

Chain L14B:



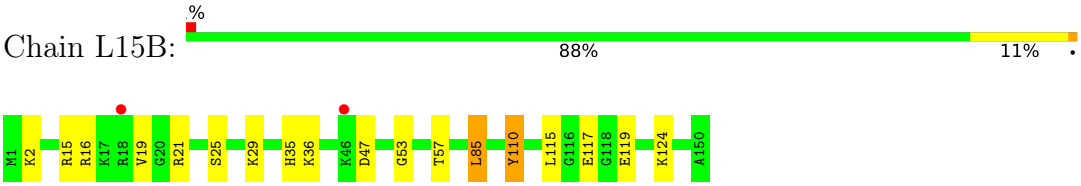
• Molecule 37: 50S ribosomal protein L15

Chain L15A:



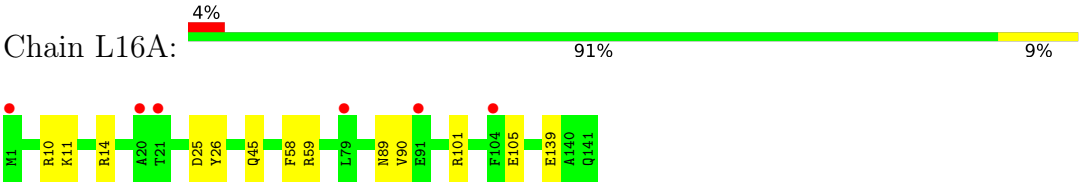
• Molecule 37: 50S ribosomal protein L15

Chain L15B:



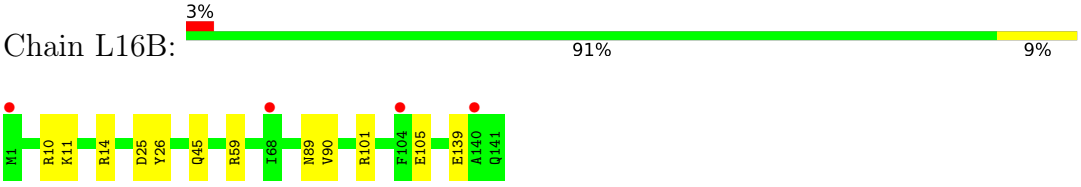
• Molecule 38: 50S ribosomal protein L16

Chain L16A:



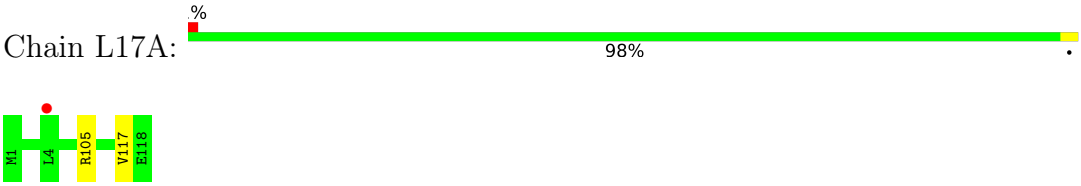
• Molecule 38: 50S ribosomal protein L16

Chain L16B:



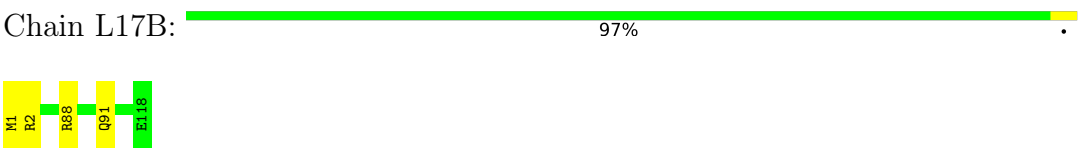
• Molecule 39: 50S ribosomal protein L17

Chain L17A:



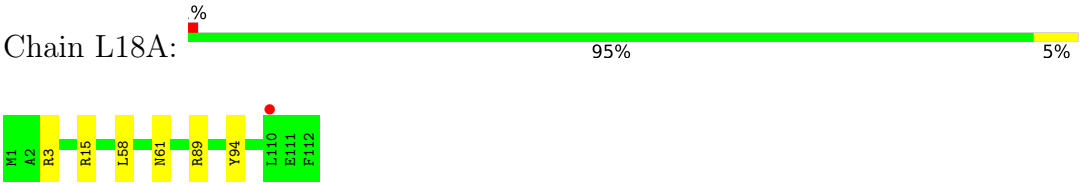
• Molecule 39: 50S ribosomal protein L17

Chain L17B:



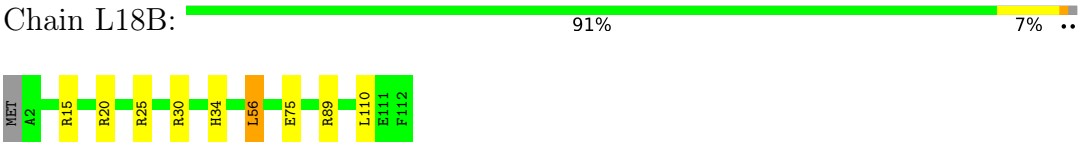
• Molecule 40: 50S ribosomal protein L18

Chain L18A:



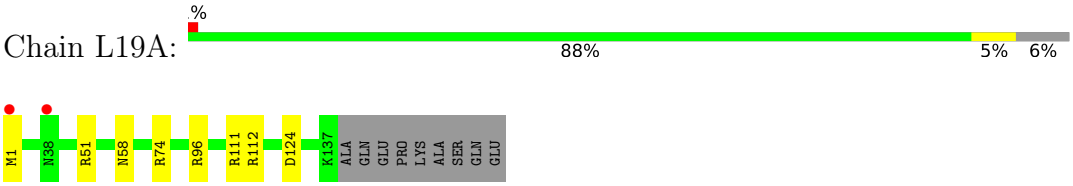
• Molecule 40: 50S ribosomal protein L18

Chain L18B:



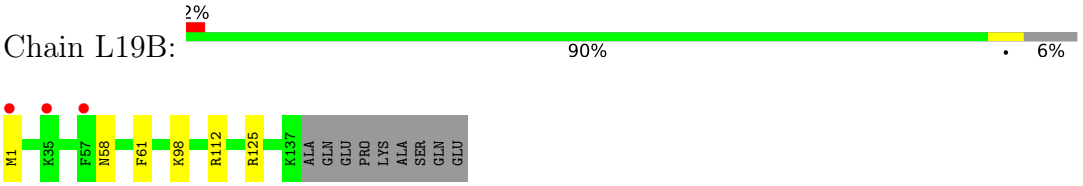
• Molecule 41: 50S ribosomal protein L19

Chain L19A:



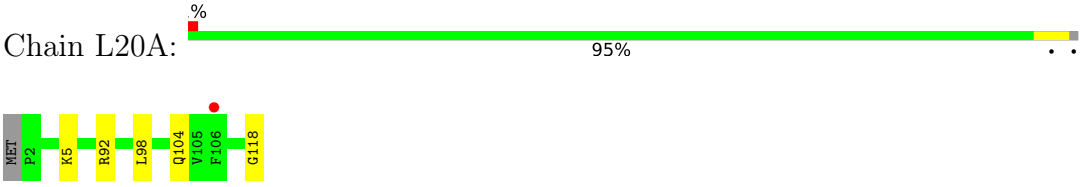
• Molecule 41: 50S ribosomal protein L19

Chain L19B:



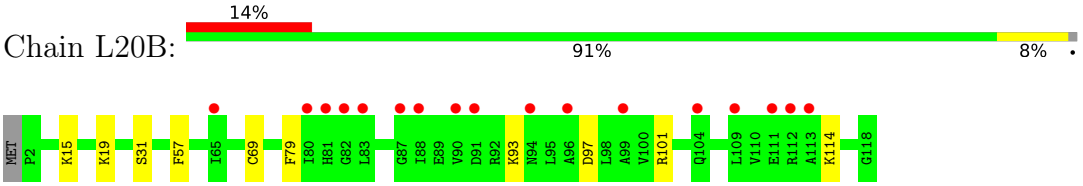
• Molecule 42: 50S ribosomal protein L20

Chain L20A:



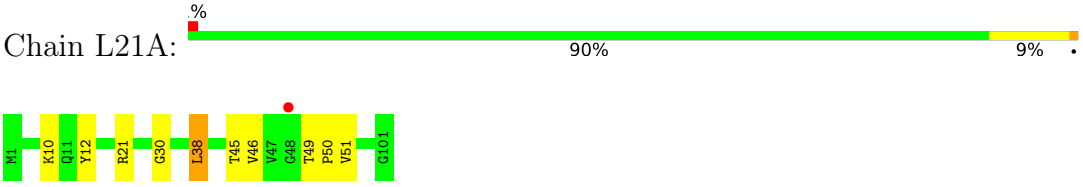
• Molecule 42: 50S ribosomal protein L20

Chain L20B:



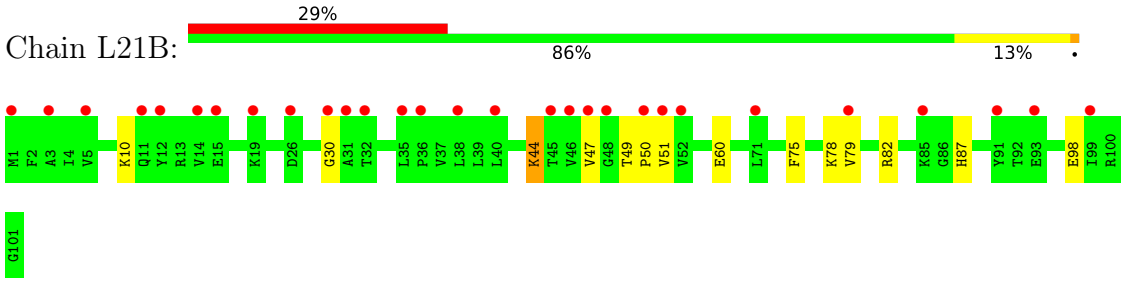
• Molecule 43: 50S ribosomal protein L21

Chain L21A:



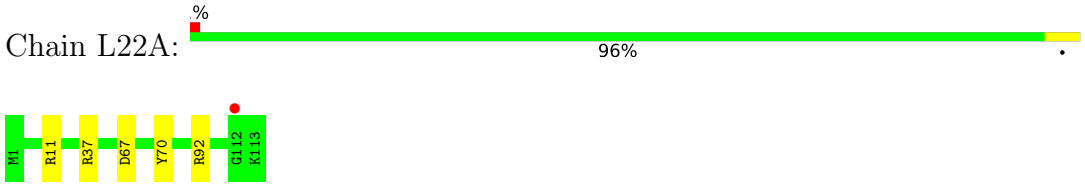
• Molecule 43: 50S ribosomal protein L21

Chain L21B:



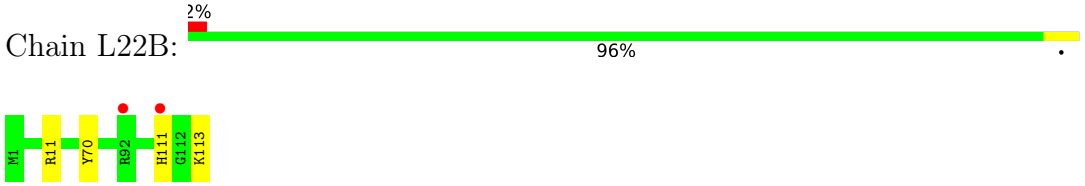
• Molecule 44: 50S ribosomal protein L22

Chain L22A:



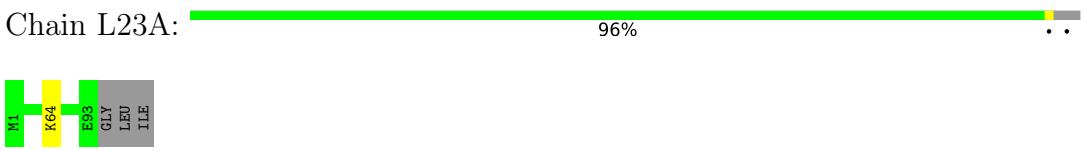
• Molecule 44: 50S ribosomal protein L22

Chain L22B:



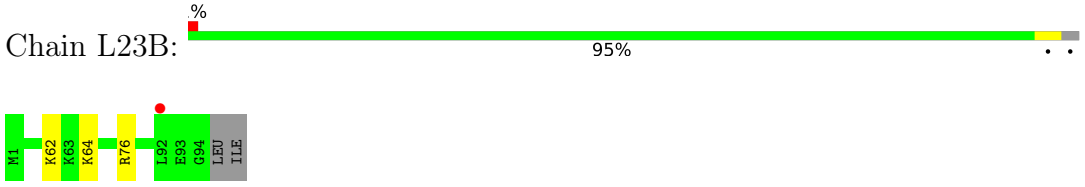
• Molecule 45: 50S ribosomal protein L23

Chain L23A:



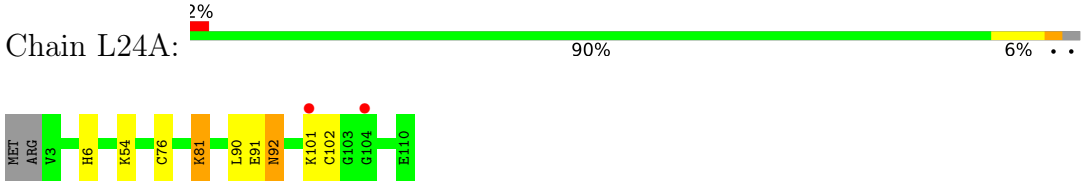
• Molecule 45: 50S ribosomal protein L23

Chain L23B:



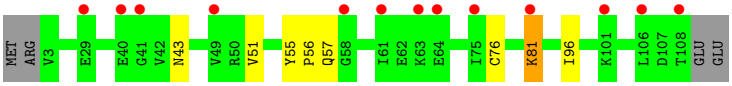
• Molecule 46: 50S ribosomal protein L24

Chain L24A:



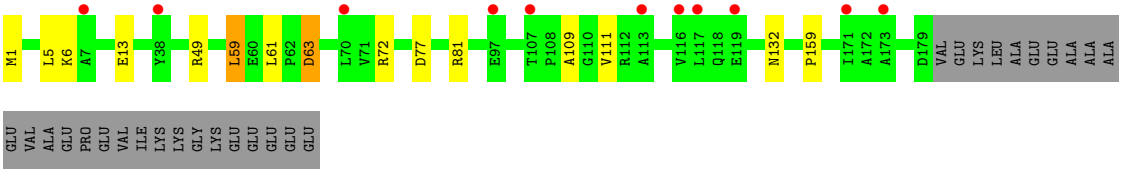
• Molecule 46: 50S ribosomal protein L24

Chain L24B:



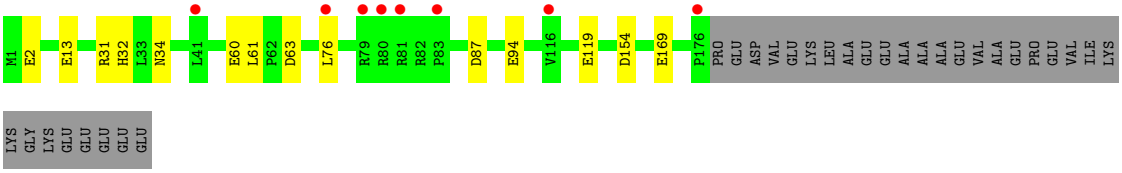
• Molecule 47: 50S ribosomal protein L25

Chain L25A:



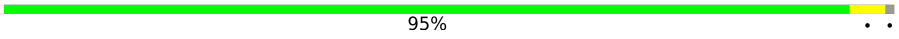
• Molecule 47: 50S ribosomal protein L25

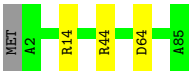
Chain L25B:



• Molecule 48: 50S ribosomal protein L27

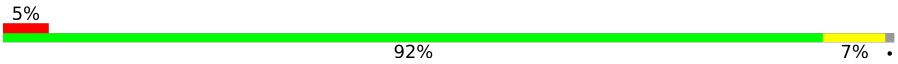
Chain L27A:

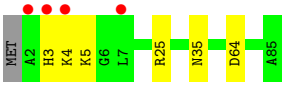




• Molecule 48: 50S ribosomal protein L27

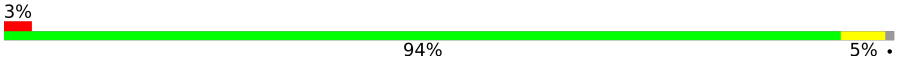
Chain L27B:

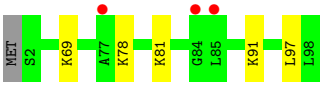




• Molecule 49: 50S ribosomal protein L28

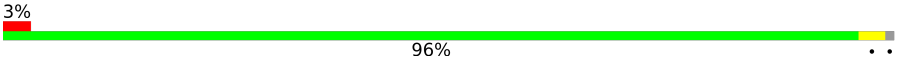
Chain L28A:

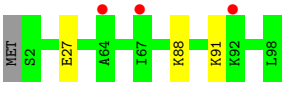




• Molecule 49: 50S ribosomal protein L28

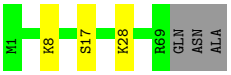
Chain L28B:





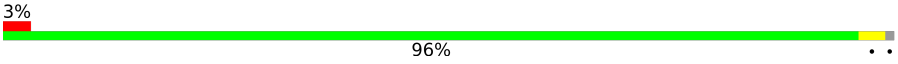
• Molecule 50: 50S ribosomal protein L29

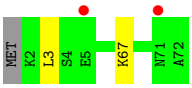
Chain L29A:



• Molecule 50: 50S ribosomal protein L29

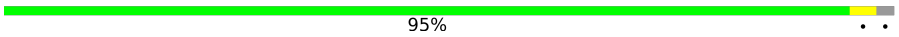
Chain L29B:

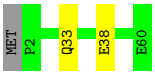




• Molecule 51: 50S ribosomal protein L30

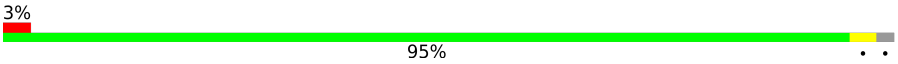
Chain L30A:

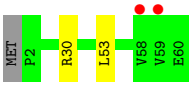




• Molecule 51: 50S ribosomal protein L30

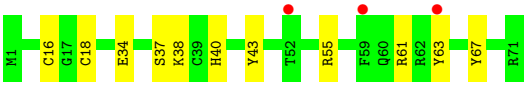
Chain L30B:





• Molecule 52: 50S ribosomal protein L31

Chain L31A:

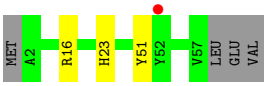


• Molecule 52: 50S ribosomal protein L31

Chain L31B:

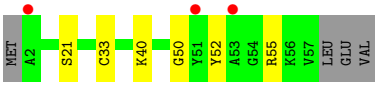
• Molecule 53: 50S ribosomal protein L32

Chain L32A:



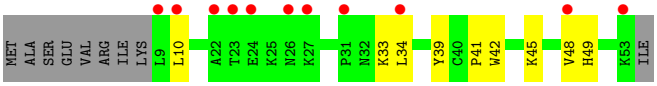
• Molecule 53: 50S ribosomal protein L32

Chain L32B:



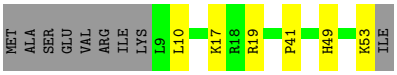
• Molecule 54: 50S ribosomal protein L33

Chain L33A:



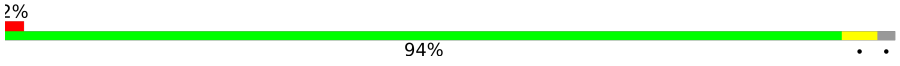
• Molecule 54: 50S ribosomal protein L33

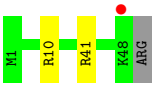
Chain L33B:



• Molecule 55: 50S ribosomal protein L34

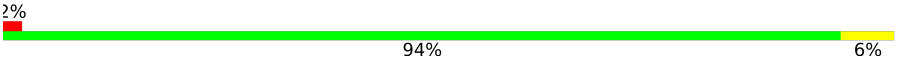
Chain L34A:

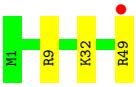




• Molecule 55: 50S ribosomal protein L34

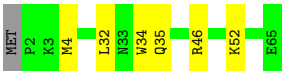
Chain L34B:





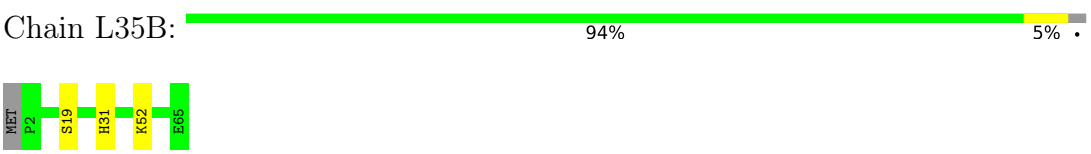
• Molecule 56: 50S ribosomal protein L35

Chain L35A:



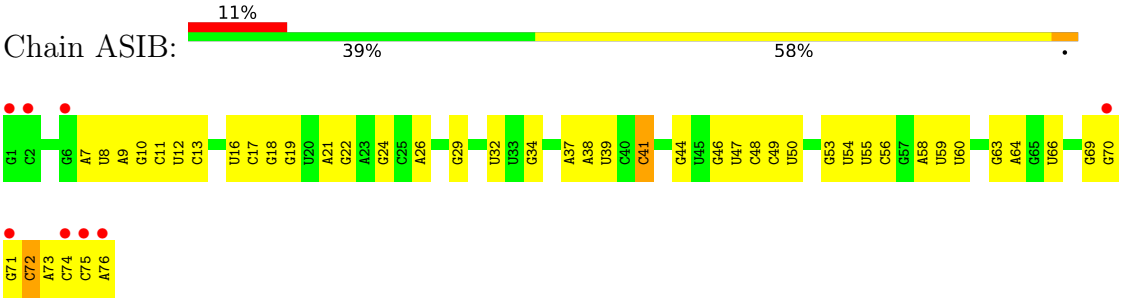
• Molecule 56: 50S ribosomal protein L35

Chain L35B:



• Molecule 57: Phe-tRNA

Chain ASIB:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.77Å 446.87Å 616.97Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	253.87 – 3.30 253.87 – 3.30	Depositor EDS
% Data completeness (in resolution range)	100.0 (253.87-3.30) 100.0 (253.87-3.30)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.15 (at 3.33Å)	Xtriage
Refinement program	PHENIX 1.18.2_3874	Depositor
R, R_{free}	0.214 , 0.238 0.214 , 0.238	Depositor DCC
R_{free} test set	834928 reflections (2.98%)	wwPDB-VP
Wilson B-factor (Å^2)	93.1	Xtriage
Anisotropy	0.299	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 51.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.42$, $< L^2 > = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	306403	wwPDB-VP
Average B, all atoms (Å^2)	94.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.41% 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 (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: 0TD, MG, G7M, OHX, OMU, H2U, SJE, 4SU, MIA, M2G, K, 2MG, 3AU, UR3, OMG, 5MC, MA6, OMC, 4OC, 5MU, PSU, 2MA

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	16SA	0.48	2/36088 (0.0%)	1.19	254/56320 (0.5%)
1	16SB	0.46	0/35999	1.19	261/56180 (0.5%)
2	S2A	0.34	0/1959	0.68	0/2642
2	S2B	0.31	0/1959	0.66	0/2642
3	S3A	0.33	0/1629	0.70	0/2195
3	S3B	0.30	0/1636	0.68	1/2205 (0.0%)
4	S4A	0.35	0/1732	0.71	0/2318
4	S4B	0.32	0/1732	0.66	0/2318
5	S5A	0.34	0/1171	0.69	0/1576
5	S5B	0.32	0/1171	0.66	0/1576
6	S6A	0.32	0/855	0.67	0/1154
6	S6B	0.33	0/855	0.63	0/1154
7	S7A	0.35	0/1275	0.67	0/1709
7	S7B	0.31	0/1275	0.62	0/1709
8	S8A	0.32	0/1135	0.69	0/1527
8	S8B	0.29	0/1135	0.65	0/1527
9	S9A	0.35	0/1028	0.71	1/1379 (0.1%)
9	S9B	0.34	0/1028	0.75	2/1379 (0.1%)
10	S10A	0.32	0/814	0.66	0/1095
10	S10B	0.31	0/814	0.70	0/1095
11	S11A	0.31	0/879	0.59	0/1187
11	S11B	0.29	0/888	0.60	0/1198
12	S12A	0.35	0/982	0.72	0/1313
12	S12B	0.32	0/982	0.68	1/1313 (0.1%)
13	S13A	0.31	0/956	0.71	0/1281
13	S13B	0.28	0/974	0.66	0/1303
14	S14A	0.41	0/500	0.76	1/664 (0.2%)
14	S14B	0.35	0/495	0.72	0/657
15	S15A	0.31	0/744	0.65	0/992
15	S15B	0.28	0/744	0.60	0/992
16	S16A	0.32	0/716	0.70	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	S16B	0.32	0/721	0.65	0/970
17	S17A	0.33	0/847	0.68	0/1131
17	S17B	0.30	0/847	0.63	0/1131
18	S18A	0.32	0/589	0.74	0/782
18	S18B	0.31	0/578	0.71	0/768
19	S19A	0.33	0/689	0.81	1/926 (0.1%)
19	S19B	0.32	0/698	0.69	0/938
20	S20A	0.35	0/764	0.74	0/1007
20	S20B	0.29	0/764	0.65	0/1007
21	THXA	0.30	0/212	0.76	0/277
21	THXB	0.29	0/221	0.75	0/288
22	ASIA	0.52	0/1647	1.44	33/2565 (1.3%)
23	PSIA	0.53	0/1602	1.27	6/2493 (0.2%)
23	PSIB	0.52	0/1602	1.21	13/2493 (0.5%)
24	ESIA	0.50	0/1783	1.20	15/2776 (0.5%)
24	ESIB	0.45	0/1783	1.14	8/2776 (0.3%)
25	MRNA	0.38	0/689	1.04	3/1069 (0.3%)
25	MRNB	0.41	0/689	1.15	8/1069 (0.7%)
26	TRNA	0.44	0/1560	1.16	6/2431 (0.2%)
27	23SA	0.53	3/69430 (0.0%)	1.20	471/108380 (0.4%)
27	23SB	0.52	10/69052 (0.0%)	1.20	514/107791 (0.5%)
28	5SA	0.51	1/2928 (0.0%)	1.21	19/4568 (0.4%)
28	5SB	0.53	0/2906	1.32	36/4533 (0.8%)
29	L2A	0.36	0/2165	0.72	1/2919 (0.0%)
29	L2B	0.36	0/2165	0.70	0/2919
30	L3A	0.34	0/1596	0.64	0/2153
30	L3B	0.33	0/1596	0.63	1/2153 (0.0%)
31	L4A	0.41	0/1620	0.69	0/2194
31	L4B	0.33	0/1620	0.67	0/2194
32	L5A	0.32	0/1498	0.67	0/2016
32	L5B	0.31	0/1498	0.65	0/2016
33	L6A	0.35	0/1341	0.73	1/1813 (0.1%)
33	L6B	0.31	0/1353	0.72	1/1830 (0.1%)
34	L9A	0.32	0/1146	0.78	1/1551 (0.1%)
34	L9B	0.32	0/1151	0.68	1/1558 (0.1%)
35	L13A	0.34	0/1131	0.70	0/1525
35	L13B	0.29	0/1131	0.65	0/1525
36	L14A	0.37	0/942	0.69	0/1269
36	L14B	0.37	0/942	0.67	1/1269 (0.1%)
37	L15A	0.39	0/1161	0.87	2/1544 (0.1%)
37	L15B	0.36	0/1161	0.81	1/1544 (0.1%)
38	L16A	0.34	0/1142	0.67	0/1527
38	L16B	0.34	0/1142	0.67	0/1527

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	L17A	0.31	0/981	0.72	0/1312
39	L17B	0.34	0/981	0.69	0/1312
40	L18A	0.32	0/899	0.82	0/1197
40	L18B	0.33	0/891	0.74	1/1187 (0.1%)
41	L19A	0.35	0/1155	0.72	0/1542
41	L19B	0.32	0/1155	0.70	0/1542
42	L20A	0.36	0/981	0.71	1/1306 (0.1%)
42	L20B	0.32	0/981	0.67	0/1306
43	L21A	0.36	0/789	0.82	2/1057 (0.2%)
43	L21B	0.39	0/789	0.76	0/1057
44	L22A	0.36	0/910	0.67	0/1220
44	L22B	0.34	0/910	0.65	0/1220
45	L23A	0.39	0/752	0.67	0/1009
45	L23B	0.35	0/756	0.61	0/1014
46	L24A	0.35	0/837	0.70	0/1118
46	L24B	0.33	0/787	0.66	0/1056
47	L25A	0.33	0/1460	0.72	2/1982 (0.1%)
47	L25B	0.30	0/1435	0.70	0/1947
48	L27A	0.38	0/670	0.73	0/892
48	L27B	0.36	0/670	0.69	0/892
49	L28A	0.36	0/769	0.68	0/1022
49	L28B	0.37	0/769	0.76	0/1022
50	L29A	0.31	0/585	0.68	0/773
50	L29B	0.31	0/592	0.65	0/784
51	L30A	0.33	0/473	0.69	0/635
51	L30B	0.32	0/473	0.71	1/635 (0.2%)
52	L31A	0.35	0/593	0.72	0/795
52	L31B	0.33	0/593	0.70	0/795
53	L32A	0.39	0/448	0.67	0/606
53	L32B	0.33	0/448	0.68	0/606
54	L33A	0.37	0/396	0.91	1/529 (0.2%)
54	L33B	0.44	0/396	0.97	1/529 (0.2%)
55	L34A	0.35	0/426	0.77	0/561
55	L34B	0.36	0/437	0.78	0/575
56	L35A	0.31	0/524	0.64	0/691
56	L35B	0.30	0/524	0.66	0/691
57	ASIB	0.45	0/1717	1.24	11/2674 (0.4%)
All	All	0.46	16/323204 (0.0%)	1.09	1684/483869 (0.3%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
34	L9A	0	2

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	23SA	2086	G	O3'-P	-11.54	1.47	1.61
1	16SA	1717	G	C6-N1	7.25	1.44	1.39
27	23SB	2127	U	C2-N3	7.24	1.42	1.37
27	23SB	2087	A	O3'-P	-7.19	1.52	1.61
27	23SB	44	G	C6-N1	7.04	1.44	1.39
27	23SA	1924	G	N9-C4	-6.82	1.32	1.38
27	23SA	2087	A	O3'-P	-6.17	1.53	1.61
27	23SB	760	G	C6-N1	5.87	1.43	1.39
27	23SB	1065	G	C6-N1	5.75	1.43	1.39
27	23SB	332	G	C8-N7	-5.61	1.27	1.30
27	23SB	2088	C	O3'-P	-5.47	1.54	1.61
1	16SA	798	G	C6-N1	5.43	1.43	1.39
27	23SB	1924	G	N9-C4	-5.36	1.33	1.38
27	23SB	380	G	C6-N1	5.19	1.43	1.39
27	23SB	377	G	C6-O6	5.19	1.28	1.24
28	5SA	20	G	C6-N1	5.00	1.43	1.39

All (1684) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	1291	A	N1-C2-N3	-30.14	114.23	129.30
27	23SB	1291	A	C2-N3-C4	19.13	120.17	110.60
27	23SA	1924	G	N3-C4-N9	-14.88	117.07	126.00
1	16SA	1717	G	C5-C6-O6	-14.08	120.15	128.60
1	16SA	1717	G	N3-C2-N2	-14.08	110.05	119.90
1	16SA	1717	G	N1-C6-O6	13.55	128.03	119.90
27	23SA	1663	A	O5'-P-OP1	-13.50	93.55	105.70
27	23SB	1065	G	N3-C2-N2	-13.25	110.62	119.90
27	23SB	1291	A	C6-N1-C2	13.09	126.45	118.60
1	16SA	798	G	N3-C2-N2	-12.74	110.98	119.90
27	23SB	44	G	C5-C6-O6	-12.42	121.15	128.60
27	23SB	44	G	N3-C2-N2	-12.37	111.24	119.90
27	23SB	44	G	N1-C6-O6	12.18	127.21	119.90
27	23SA	1924	G	N3-C4-C5	11.93	134.56	128.60
27	23SA	700	G	C5-C6-O6	-11.69	121.59	128.60
27	23SB	332	G	N9-C4-C5	-11.66	100.74	105.40
27	23SA	995	G	O5'-P-OP1	-11.49	95.36	105.70
1	16SB	1900	G	N3-C2-N2	-11.35	111.95	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	1924	G	N3-C4-N9	-11.31	119.21	126.00
27	23SA	882	U	O5'-P-OP1	-11.14	95.67	105.70
1	16SA	654	A	O5'-P-OP2	-11.13	95.68	105.70
1	16SA	1682	C	C2-N1-C1'	11.01	130.91	118.80
27	23SB	2840	C	C2-N1-C1'	10.97	130.87	118.80
27	23SB	1212	G	N3-C2-N2	-10.79	112.34	119.90
22	ASIA	71	G	C5-C6-O6	-10.71	122.18	128.60
1	16SB	1616	G	C6-C5-N7	-10.66	124.00	130.40
28	5SA	20	G	N3-C2-N2	-10.55	112.51	119.90
27	23SA	1988	U	N1-C2-O2	10.51	130.16	122.80
27	23SB	2127	U	C2-N3-C4	-10.49	120.71	127.00
27	23SB	2207	G	N3-C2-N2	-10.46	112.58	119.90
27	23SB	760	G	N3-C2-N2	-10.44	112.59	119.90
22	ASIA	71	G	N1-C6-O6	10.40	126.14	119.90
27	23SA	700	G	N1-C6-O6	10.33	126.10	119.90
27	23SB	1240	G	N1-C6-O6	-10.32	113.71	119.90
27	23SB	332	G	C5-C6-O6	-10.14	122.52	128.60
27	23SB	2445	A	O5'-P-OP2	-10.11	96.60	105.70
28	5SA	20	G	C5-C6-O6	-10.09	122.55	128.60
27	23SA	836	U	O5'-P-OP1	-10.09	96.62	105.70
27	23SB	420	C	O5'-P-OP1	-9.98	96.72	105.70
27	23SB	380	G	C5-C6-O6	-9.97	122.62	128.60
1	16SA	1584	U	C2-N3-C4	-9.93	121.05	127.00
27	23SA	1228	C	C2-N1-C1'	9.90	129.69	118.80
25	MRNB	56	U	C2-N1-C1'	9.81	129.47	117.70
1	16SA	1584	U	N1-C2-N3	9.72	120.73	114.90
27	23SA	1988	U	N3-C2-O2	-9.69	115.42	122.20
1	16SA	1682	C	C6-N1-C1'	-9.69	109.18	120.80
1	16SA	1919	U	O5'-P-OP2	-9.59	97.07	105.70
27	23SA	789	U	O5'-P-OP2	-9.57	97.09	105.70
1	16SB	785	G	N3-C2-N2	-9.55	113.21	119.90
27	23SA	2490	C	N1-C2-O2	9.54	124.63	118.90
1	16SB	1899	G	N1-C6-O6	9.51	125.61	119.90
27	23SB	2840	C	C5-C6-N1	9.51	125.75	121.00
27	23SA	1924	G	N3-C2-N2	-9.49	113.26	119.90
1	16SA	867	G	C5-C6-O6	-9.43	122.94	128.60
27	23SB	2829	C	C6-N1-C2	-9.41	116.54	120.30
27	23SA	1924	G	C8-N9-C1'	9.34	139.14	127.00
27	23SA	2490	C	C2-N1-C1'	9.34	129.07	118.80
22	ASIA	71	G	C4-C5-N7	9.33	114.53	110.80
27	23SA	1155	G	N3-C2-N2	-9.33	113.37	119.90
27	23SB	53	G	N3-C2-N2	-9.33	113.37	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	557	G	N1-C6-O6	9.32	125.49	119.90
27	23SB	332	G	C8-N9-C4	9.32	110.13	106.40
27	23SB	332	G	N3-C4-N9	9.32	131.59	126.00
27	23SA	1466	C	C6-N1-C2	-9.30	116.58	120.30
27	23SA	2483	G	O4'-C1'-N9	9.26	115.61	108.20
27	23SB	760	G	C5-C6-O6	-9.23	123.06	128.60
1	16SB	1653	C	C5-C4-N4	-9.14	113.80	120.20
27	23SA	2521	U	N3-C2-O2	-9.14	115.81	122.20
1	16SA	1826	U	O5'-P-OP1	-9.13	97.48	105.70
27	23SB	1039	C	C6-N1-C2	-9.06	116.67	120.30
27	23SA	1924	G	C4-N9-C1'	-9.06	114.72	126.50
1	16SA	867	G	N1-C6-O6	9.03	125.32	119.90
27	23SB	1924	G	N3-C4-C5	9.02	133.11	128.60
27	23SA	395	C	C2-N1-C1'	9.02	128.72	118.80
1	16SB	1616	G	C4-C5-N7	9.02	114.41	110.80
27	23SB	294	C	C6-N1-C2	-8.95	116.72	120.30
27	23SB	557	G	C6-C5-N7	-8.94	125.04	130.40
22	ASIA	71	G	N9-C4-C5	-8.92	101.83	105.40
27	23SA	1110	G	N3-C4-N9	-8.92	120.65	126.00
1	16SA	1471	C	N3-C4-N4	8.90	124.23	118.00
27	23SB	849	A	O5'-P-OP1	-8.86	97.72	105.70
1	16SB	1187	G	O5'-P-OP1	-8.86	97.73	105.70
27	23SB	332	G	C5-C6-N1	8.86	115.93	111.50
27	23SA	2521	U	N1-C2-O2	8.83	128.98	122.80
27	23SA	1532	G	C5-C6-O6	-8.81	123.31	128.60
1	16SB	1757	C	C2-N1-C1'	8.81	128.49	118.80
27	23SA	1228	C	N3-C4-N4	8.78	124.14	118.00
1	16SA	1621	G	N3-C2-N2	-8.77	113.76	119.90
27	23SB	264	C	N1-C2-O2	-8.75	113.65	118.90
27	23SA	2435	C	O5'-P-OP1	-8.70	97.87	105.70
27	23SA	929	G	N3-C4-N9	-8.68	120.79	126.00
27	23SB	1065	G	C5-C6-O6	-8.61	123.44	128.60
28	5SB	69	G	N1-C6-O6	8.60	125.06	119.90
27	23SB	1689	U	O5'-P-OP2	-8.60	97.96	105.70
27	23SB	392	G	N9-C4-C5	8.60	108.84	105.40
1	16SB	1104	G	C5-C6-O6	8.59	133.75	128.60
27	23SB	380	G	N3-C2-N2	-8.56	113.91	119.90
27	23SB	557	G	C5-C6-O6	-8.55	123.47	128.60
27	23SA	1228	C	C6-N1-C1'	-8.54	110.55	120.80
1	16SA	798	G	N9-C4-C5	8.54	108.82	105.40
22	ASIA	71	G	C6-C5-N7	-8.54	125.28	130.40
1	16SA	787	G	N1-C6-O6	-8.51	114.79	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	1882	A	O5'-P-OP1	-8.51	98.04	105.70
27	23SA	1532	G	N1-C6-O6	8.49	125.00	119.90
1	16SB	1771	G	C6-C5-N7	8.49	135.49	130.40
1	16SB	1899	G	C4-C5-N7	8.49	114.19	110.80
27	23SA	2086	G	P-O3'-C3'	8.48	129.88	119.70
27	23SA	2421	U	C2-N1-C1'	8.48	127.87	117.70
1	16SB	940	G	C5-C6-O6	-8.48	123.51	128.60
1	16SB	1837	C	C2-N1-C1'	8.46	128.11	118.80
27	23SB	2843	G	N3-C2-N2	-8.45	113.98	119.90
1	16SB	1899	G	C5-C6-O6	-8.45	123.53	128.60
27	23SA	1155	G	N9-C4-C5	8.43	108.77	105.40
1	16SB	1562	G	N3-C2-N2	-8.42	114.01	119.90
1	16SB	1771	G	N3-C4-N9	-8.39	120.97	126.00
1	16SB	1900	G	N9-C4-C5	8.38	108.75	105.40
27	23SB	202	G	N3-C2-N2	-8.38	114.03	119.90
1	16SB	1899	G	C6-C5-N7	-8.37	125.38	130.40
24	ESIB	59	U	O5'-P-OP1	-8.37	98.17	105.70
1	16SA	1929	U	C2-N1-C1'	8.36	127.73	117.70
27	23SA	255	A	O4'-C1'-N9	8.36	114.89	108.20
27	23SA	2162	C	C6-N1-C2	-8.36	116.96	120.30
27	23SB	1551	C	C5-C6-N1	8.35	125.18	121.00
27	23SA	2087	A	O5'-P-OP2	-8.32	98.21	105.70
1	16SA	716	G	O4'-C1'-N9	8.31	114.85	108.20
27	23SA	1462	G	N3-C2-N2	-8.31	114.08	119.90
27	23SA	2417	C	C5-C6-N1	8.30	125.15	121.00
27	23SB	2211	G	N3-C2-N2	-8.30	114.09	119.90
28	5SB	69	G	C5-C6-O6	-8.29	123.62	128.60
27	23SB	2617	A	O5'-P-OP1	-8.28	98.25	105.70
27	23SB	352	G	N3-C2-N2	-8.26	114.12	119.90
1	16SA	796	G	N3-C2-N2	-8.25	114.13	119.90
28	5SA	20	G	N1-C6-O6	8.25	124.85	119.90
27	23SB	380	G	N1-C6-O6	8.24	124.84	119.90
1	16SB	2140	G	O5'-P-OP1	-8.23	98.29	105.70
1	16SA	1471	C	C2-N1-C1'	8.23	127.85	118.80
57	ASIB	72	C	N3-C2-O2	-8.21	116.16	121.90
27	23SB	1021	G	C4-N9-C1'	-8.20	115.84	126.50
27	23SA	700	G	C6-C5-N7	-8.19	125.49	130.40
54	L33B	10	LEU	CB-CG-CD2	-8.19	97.08	111.00
27	23SB	2840	C	C6-N1-C2	-8.16	117.03	120.30
27	23SA	2483	G	C4-N9-C1'	8.14	137.09	126.50
27	23SB	195	G	P-O3'-C3'	8.13	129.46	119.70
27	23SA	2647	A	O5'-P-OP1	-8.12	98.39	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	377	G	C4-C5-N7	-8.12	107.55	110.80
1	16SB	1653	C	N3-C4-N4	8.11	123.68	118.00
27	23SB	2127	U	N1-C2-O2	-8.10	117.13	122.80
27	23SA	2154	C	N3-C4-N4	-8.10	112.33	118.00
1	16SB	1616	G	N9-C4-C5	-8.09	102.17	105.40
1	16SB	736	G	N3-C2-N2	-8.09	114.24	119.90
1	16SA	1717	G	N1-C2-N2	8.06	123.46	116.20
27	23SA	1808	C	N3-C2-O2	-8.06	116.25	121.90
22	ASIA	19	G	N9-C4-C5	8.06	108.62	105.40
27	23SA	2022	G	O5'-P-OP2	-8.06	98.44	105.70
27	23SA	2869	C	C6-N1-C2	-8.04	117.08	120.30
27	23SB	423	U	O4'-C1'-N1	8.02	114.61	108.20
27	23SA	946	C	N1-C2-O2	8.00	123.70	118.90
27	23SA	1907	C	C6-N1-C2	-8.00	117.10	120.30
1	16SA	1621	G	N9-C4-C5	8.00	108.60	105.40
1	16SB	1616	G	N3-C4-N9	8.00	130.80	126.00
27	23SA	2177	G	C6-C5-N7	-7.99	125.61	130.40
1	16SA	1717	G	C6-N1-C2	-7.97	120.32	125.10
27	23SB	942	C	C6-N1-C2	-7.94	117.12	120.30
27	23SB	1533	G	C6-C5-N7	-7.93	125.64	130.40
28	5SA	32	C	C6-N1-C2	-7.93	117.13	120.30
27	23SA	2177	G	C5-C6-O6	-7.90	123.86	128.60
1	16SA	867	G	N9-C4-C5	-7.89	102.25	105.40
1	16SB	1771	G	N9-C4-C5	7.89	108.56	105.40
1	16SA	1352	U	C2-N1-C1'	7.87	127.15	117.70
27	23SB	624	G	C6-C5-N7	7.87	135.12	130.40
27	23SB	1065	G	N1-C6-O6	7.87	124.62	119.90
27	23SB	2328	C	N3-C2-O2	-7.85	116.40	121.90
27	23SB	1065	G	C6-N1-C2	-7.84	120.39	125.10
27	23SB	163	G	C5-C6-O6	-7.84	123.90	128.60
27	23SB	1634	C	C2-N1-C1'	7.84	127.42	118.80
27	23SA	929	G	N3-C2-N2	-7.83	114.42	119.90
23	PSIB	5	G	N1-C6-O6	7.82	124.59	119.90
27	23SA	206	A	OP2-P-O3'	7.81	122.38	105.20
27	23SB	1562	C	C6-N1-C2	-7.81	117.18	120.30
27	23SB	2829	C	N3-C4-C5	-7.80	118.78	121.90
27	23SA	395	C	C5-C6-N1	7.80	124.90	121.00
27	23SB	1084	G	N3-C2-N2	-7.80	114.44	119.90
27	23SB	760	G	N1-C6-O6	7.80	124.58	119.90
1	16SA	1286	G	N3-C2-N2	-7.79	114.45	119.90
27	23SB	1363	C	C2-N1-C1'	7.77	127.35	118.80
27	23SB	2128	C	C6-N1-C2	-7.77	117.19	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SB	1621	G	N3-C2-N2	-7.77	114.46	119.90
28	5SA	21	G	C4-C5-N7	7.76	113.91	110.80
27	23SB	146	G	N9-C4-C5	7.76	108.51	105.40
1	16SA	693	C	C6-N1-C2	7.75	123.40	120.30
27	23SB	557	G	C4-C5-N7	7.75	113.90	110.80
1	16SA	1221	G	C5-C6-O6	-7.75	123.95	128.60
27	23SB	1021	G	C8-N9-C1'	7.75	137.07	127.00
27	23SB	942	C	C2-N1-C1'	7.73	127.31	118.80
27	23SA	2505	G	C6-C5-N7	-7.73	125.76	130.40
33	L6B	98	LEU	CA-CB-CG	7.72	133.05	115.30
27	23SA	2333	G	O4'-C1'-N9	7.72	114.37	108.20
27	23SB	285	G	N1-C6-O6	-7.69	115.29	119.90
27	23SB	146	G	C4-C5-N7	-7.68	107.73	110.80
1	16SA	1421	A	O4'-C1'-N9	7.67	114.34	108.20
1	16SB	1647	G	C4-C5-N7	7.67	113.87	110.80
1	16SA	1817	G	N9-C4-C5	-7.67	102.33	105.40
1	16SA	798	G	N1-C2-N2	7.66	123.09	116.20
27	23SB	1551	C	C2-N1-C1'	7.65	127.21	118.80
28	5SA	21	G	C6-C5-N7	-7.65	125.81	130.40
14	S14A	27	CYS	CA-CB-SG	7.64	127.76	114.00
27	23SB	942	C	C5-C6-N1	7.63	124.82	121.00
27	23SB	2322	G	O4'-C1'-N9	7.63	114.31	108.20
27	23SB	332	G	C4-C5-N7	7.61	113.84	110.80
1	16SB	1899	G	N9-C4-C5	-7.60	102.36	105.40
27	23SB	1924	G	C8-N9-C1'	7.60	136.88	127.00
27	23SB	2840	C	C6-N1-C1'	-7.59	111.69	120.80
27	23SB	1079	G	N3-C2-N2	-7.58	114.59	119.90
27	23SA	1744	C	P-O3'-C3'	7.58	128.79	119.70
27	23SB	2886	A	N7-C8-N9	7.58	117.59	113.80
27	23SB	392	G	C4-C5-N7	-7.56	107.77	110.80
1	16SA	1929	U	N1-C2-O2	7.56	128.09	122.80
43	L21A	38	LEU	CA-CB-CG	7.55	132.68	115.30
27	23SA	1228	C	C5-C4-N4	-7.54	114.92	120.20
1	16SA	805	C	C6-N1-C2	-7.54	117.28	120.30
27	23SA	2130	C	N1-C2-O2	-7.53	114.38	118.90
27	23SB	2318	G	N3-C2-N2	-7.53	114.63	119.90
1	16SA	867	G	C4-C5-N7	7.52	113.81	110.80
27	23SB	2207	G	N9-C4-C5	7.52	108.41	105.40
27	23SB	2128	C	C2-N1-C1'	7.51	127.06	118.80
1	16SB	1919	U	O5'-P-OP1	-7.51	98.94	105.70
1	16SB	1647	G	C6-C5-N7	-7.50	125.90	130.40
1	16SB	1771	G	N1-C6-O6	-7.50	115.40	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SA	1381	G	C4-N9-C1'	7.50	136.25	126.50
27	23SB	2213	C	C2-N1-C1'	-7.50	110.55	118.80
27	23SA	1101	C	C2-N1-C1'	7.49	127.04	118.80
28	5SA	21	G	N1-C6-O6	7.49	124.40	119.90
27	23SB	392	G	N3-C2-N2	-7.48	114.67	119.90
26	TRNA	3	C	N3-C4-N4	7.47	123.23	118.00
27	23SA	2017	G	C2'-C3'-O3'	7.46	125.92	109.50
27	23SA	2322	G	O4'-C1'-N9	7.46	114.17	108.20
1	16SB	1937	G	N3-C2-N2	-7.46	114.68	119.90
27	23SA	1110	G	C2-N3-C4	-7.45	108.17	111.90
1	16SA	1820	G	O5'-P-OP1	-7.45	99.00	105.70
1	16SB	1616	G	N1-C6-O6	7.43	124.36	119.90
27	23SB	385	G	N3-C2-N2	-7.43	114.70	119.90
22	ASIA	19	G	N3-C2-N2	-7.42	114.71	119.90
27	23SA	1924	G	N9-C4-C5	7.41	108.36	105.40
1	16SA	1793	C	N1-C2-O2	-7.41	114.45	118.90
27	23SA	2177	G	N1-C6-O6	7.41	124.35	119.90
27	23SB	1972	C	C2-N1-C1'	7.41	126.95	118.80
1	16SB	787	G	N3-C2-N2	-7.40	114.72	119.90
27	23SB	2317	G	N9-C4-C5	7.39	108.36	105.40
27	23SB	1924	G	C4-N9-C1'	-7.37	116.91	126.50
27	23SB	1637	C	C2-N1-C1'	7.36	126.90	118.80
27	23SB	2647	A	O5'-P-OP2	-7.36	99.07	105.70
27	23SB	903	G	N3-C2-N2	-7.36	114.75	119.90
1	16SA	1471	C	C5-C6-N1	7.36	124.68	121.00
1	16SA	1013	C	C2-N1-C1'	7.36	126.89	118.80
26	TRNA	3	C	C2-N1-C1'	7.35	126.88	118.80
27	23SB	2184	G	C2-N3-C4	-7.34	108.23	111.90
27	23SA	699	C	N3-C4-N4	7.33	123.13	118.00
27	23SB	2184	G	O4'-C1'-N9	-7.33	102.33	108.20
22	ASIA	56	C	N1-C2-O2	7.33	123.30	118.90
27	23SB	581	G	N7-C8-N9	7.33	116.77	113.10
27	23SA	1955	G	O5'-P-OP2	-7.33	99.11	105.70
27	23SA	2483	G	C8-N9-C1'	-7.33	117.48	127.00
1	16SB	959	G	N3-C2-N2	-7.32	114.77	119.90
1	16SB	785	G	C6-N1-C2	-7.32	120.71	125.10
27	23SA	2177	G	N3-C4-N9	7.32	130.39	126.00
27	23SA	2808	G	N3-C2-N2	-7.31	114.78	119.90
23	PSIB	1	G	N3-C4-N9	7.30	130.38	126.00
27	23SB	285	G	C5-C6-O6	7.29	132.97	128.60
1	16SB	1748	G	C6-C5-N7	7.29	134.77	130.40
27	23SB	1349	U	P-O3'-C3'	7.29	128.44	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SA	700	G	C4-C5-N7	7.28	113.71	110.80
27	23SB	27	G	N3-C4-N9	-7.28	121.63	126.00
27	23SB	629	G	C5-C6-O6	-7.28	124.23	128.60
1	16SA	1786	C	C2-N1-C1'	7.28	126.81	118.80
27	23SA	700	G	N3-C4-N9	7.28	130.37	126.00
1	16SA	1403	G	N3-C2-N2	-7.28	114.81	119.90
27	23SB	1784	G	C6-C5-N7	7.28	134.76	130.40
1	16SA	1927	G	C4-N9-C1'	-7.27	117.05	126.50
27	23SB	1039	C	N3-C4-C5	-7.27	118.99	121.90
1	16SB	1554	C	N1-C2-O2	-7.27	114.54	118.90
27	23SA	1217	G	C6-C5-N7	-7.26	126.04	130.40
27	23SA	965	A	C2-N3-C4	-7.25	106.97	110.60
29	L2A	111	LEU	CA-CB-CG	7.25	131.97	115.30
1	16SB	1939	G	N3-C2-N2	-7.25	114.83	119.90
27	23SA	2417	C	C6-N1-C2	-7.24	117.40	120.30
27	23SA	2173	G	N1-C6-O6	7.23	124.24	119.90
27	23SB	1663	A	O4'-C1'-N9	7.23	113.99	108.20
27	23SB	1291	A	C4-C5-C6	-7.23	113.39	117.00
1	16SA	1221	G	N3-C2-N2	-7.23	114.84	119.90
1	16SB	1754	U	N3-C2-O2	-7.23	117.14	122.20
24	ESIA	6	G	N3-C2-N2	-7.21	114.85	119.90
27	23SB	44	G	C6-N1-C2	-7.21	120.78	125.10
27	23SA	98	U	C5-C6-N1	7.20	126.30	122.70
27	23SB	1955	G	O5'-P-OP1	-7.19	99.23	105.70
24	ESIB	29	G	N3-C2-N2	-7.18	114.87	119.90
25	MRNB	56	U	C6-N1-C1'	-7.17	111.16	121.20
27	23SA	2162	C	N3-C2-O2	-7.17	116.88	121.90
43	L21A	49	THR	C-N-CD	-7.17	104.83	120.60
1	16SB	1252	C	C2-N1-C1'	7.17	126.69	118.80
27	23SB	1280	G	N3-C4-N9	-7.17	121.70	126.00
22	ASIA	56	C	N3-C2-O2	-7.16	116.89	121.90
1	16SB	2023	C	C2-N1-C1'	7.15	126.66	118.80
27	23SA	1780	G	N3-C2-N2	-7.15	114.90	119.90
1	16SB	1752	G	N3-C2-N2	-7.14	114.90	119.90
1	16SA	1119	C	C2-N1-C1'	7.14	126.66	118.80
27	23SA	1924	G	C2-N3-C4	-7.14	108.33	111.90
27	23SB	1721	U	C5-C4-O4	7.14	130.18	125.90
27	23SB	1808	C	N3-C2-O2	-7.13	116.91	121.90
1	16SB	1471	C	C6-N1-C2	-7.13	117.45	120.30
27	23SB	294	C	N3-C4-C5	-7.13	119.05	121.90
27	23SB	1065	G	N1-C2-N2	7.13	122.61	116.20
1	16SB	1647	G	N9-C4-C5	-7.11	102.56	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	1924	G	N3-C2-N2	-7.11	114.93	119.90
27	23SA	1733	C	C6-N1-C2	-7.10	117.46	120.30
27	23SA	1975	G	C6-C5-N7	-7.09	126.15	130.40
1	16SB	872	G	N3-C2-N2	-7.08	114.94	119.90
27	23SB	757	C	C2-N1-C1'	7.07	126.58	118.80
28	5SB	18	G	N9-C4-C5	7.07	108.23	105.40
1	16SA	1851	G	N3-C2-N2	-7.06	114.96	119.90
27	23SA	2774	A	N1-C6-N6	-7.06	114.37	118.60
27	23SA	279	G	N1-C6-O6	-7.04	115.67	119.90
27	23SB	2211	G	N3-C4-N9	-7.04	121.78	126.00
1	16SB	733	C	C2-N1-C1'	7.04	126.54	118.80
28	5SB	23	G	C6-C5-N7	7.04	134.62	130.40
27	23SB	2127	U	N1-C2-N3	7.04	119.12	114.90
27	23SA	895	C	C2'-C3'-O3'	7.02	124.95	109.50
1	16SA	1928	U	N3-C2-O2	-7.02	117.29	122.20
27	23SB	1721	U	N3-C4-O4	-7.02	114.49	119.40
27	23SB	311	C	C2-N1-C1'	7.01	126.51	118.80
27	23SB	1589	G	N3-C2-N2	-7.01	114.99	119.90
27	23SB	2213	C	C6-N1-C1'	7.00	129.20	120.80
1	16SA	1115	G	O4'-C1'-N9	7.00	113.80	108.20
1	16SB	826	C	C2-N1-C1'	7.00	126.50	118.80
27	23SB	1231	G	N3-C2-N2	-7.00	115.00	119.90
27	23SB	1212	G	N3-C4-N9	-6.99	121.81	126.00
27	23SB	1634	C	N1-C2-O2	6.97	123.08	118.90
1	16SA	1748	G	C6-C5-N7	6.97	134.58	130.40
1	16SB	1781	C	C6-N1-C2	-6.97	117.51	120.30
27	23SA	1988	U	C2-N1-C1'	6.96	126.06	117.70
57	ASIB	55	U	N3-C4-O4	-6.96	114.53	119.40
1	16SB	1754	U	C2-N1-C1'	6.96	126.05	117.70
27	23SA	1975	G	C4-N9-C1'	6.95	135.54	126.50
27	23SA	1907	C	C2-N1-C1'	6.95	126.44	118.80
1	16SB	2085	G	C4-C5-N7	6.94	113.58	110.80
1	16SA	1938	G	N3-C2-N2	-6.93	115.05	119.90
22	ASIA	56	C	C2-N1-C1'	6.92	126.42	118.80
28	5SB	33	C	N1-C2-O2	6.92	123.05	118.90
1	16SA	1809	G	C4-N9-C1'	-6.92	117.51	126.50
27	23SA	928	G	C4-C5-N7	6.92	113.57	110.80
27	23SA	1532	G	C6-C5-N7	-6.91	126.25	130.40
27	23SA	1975	G	O4'-C1'-N9	6.91	113.73	108.20
27	23SA	91	G	N3-C4-N9	-6.91	121.85	126.00
22	ASIA	19	G	N3-C4-N9	-6.91	121.86	126.00
27	23SA	2490	C	N3-C2-O2	-6.90	117.07	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	1501	C	N1-C2-O2	-6.90	114.76	118.90
27	23SA	1228	C	C5-C6-N1	6.89	124.44	121.00
27	23SB	1212	G	C4-C5-N7	-6.88	108.05	110.80
27	23SA	1381	G	C6-C5-N7	-6.87	126.28	130.40
27	23SA	725	A	C2-N3-C4	-6.87	107.17	110.60
1	16SA	730	C	C6-N1-C2	-6.86	117.56	120.30
1	16SA	1990	C	C6-N1-C2	-6.85	117.56	120.30
27	23SB	2127	U	C5-C4-O4	-6.85	121.79	125.90
27	23SA	1562	C	C2-N1-C1'	6.84	126.33	118.80
27	23SA	1956	U	N3-C2-O2	-6.84	117.41	122.20
27	23SA	2154	C	N3-C2-O2	-6.84	117.11	121.90
1	16SB	733	C	C5-C4-N4	-6.84	115.41	120.20
27	23SB	575	G	C5-C6-O6	-6.84	124.50	128.60
27	23SB	624	G	N3-C4-N9	-6.84	121.89	126.00
27	23SB	425	G	N3-C2-N2	-6.84	115.11	119.90
27	23SA	725	A	O4'-C1'-N9	6.83	113.67	108.20
27	23SB	760	G	N1-C2-N2	6.83	122.35	116.20
1	16SA	1471	C	C5-C4-N4	-6.82	115.42	120.20
27	23SB	1329	G	N9-C4-C5	-6.82	102.67	105.40
1	16SA	1927	G	C8-N9-C1'	6.82	135.87	127.00
24	ESIA	65	G	C4-C5-N7	6.82	113.53	110.80
27	23SB	44	G	N1-C2-N2	6.82	122.34	116.20
1	16SA	1748	G	N1-C6-O6	-6.82	115.81	119.90
27	23SB	2207	G	N3-C4-N9	-6.82	121.91	126.00
1	16SB	1748	G	N1-C6-O6	-6.81	115.81	119.90
27	23SA	952	C	C2-N1-C1'	6.80	126.28	118.80
27	23SA	2490	C	C6-N1-C1'	-6.80	112.64	120.80
27	23SB	895	C	N3-C2-O2	-6.79	117.15	121.90
1	16SA	2126	A	P-O3'-C3'	6.78	127.84	119.70
27	23SA	118	U	C4-C5-C6	6.78	123.77	119.70
27	23SA	395	C	C6-N1-C2	-6.78	117.59	120.30
22	ASIA	75	C	C6-N1-C2	-6.78	117.59	120.30
27	23SA	2505	G	C4-C5-N7	6.78	113.51	110.80
1	16SA	1867	U	N1-C2-O2	6.76	127.53	122.80
1	16SA	1928	U	C2-N1-C1'	6.76	125.81	117.70
27	23SA	725	A	C5-N7-C8	-6.76	100.52	103.90
27	23SB	1280	G	C6-C5-N7	6.76	134.46	130.40
28	5SA	20	G	C6-N1-C2	-6.75	121.05	125.10
1	16SA	798	G	N3-C4-N9	-6.75	121.95	126.00
27	23SA	1363	C	C2-N1-C1'	6.75	126.23	118.80
1	16SB	1257	G	N3-C2-N2	-6.75	115.18	119.90
27	23SA	1217	G	N1-C6-O6	6.74	123.95	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SA	2287	U	N3-C4-O4	-6.74	114.68	119.40
27	23SB	377	G	C5-C6-O6	6.74	132.64	128.60
27	23SB	153	C	C2-N1-C1'	6.74	126.21	118.80
22	ASIA	71	G	N3-C4-N9	6.73	130.04	126.00
25	MRNB	53	U	O4'-C1'-N1	6.73	113.59	108.20
28	5SB	18	G	C8-N9-C4	-6.73	103.71	106.40
27	23SA	2535	C	O5'-P-OP1	6.73	118.78	110.70
1	16SA	1441	C	P-O3'-C3'	6.73	127.77	119.70
23	PSIB	5	G	C5-C6-O6	-6.73	124.56	128.60
27	23SA	2173	G	C6-C5-N7	-6.73	126.36	130.40
27	23SB	2317	G	C6-C5-N7	6.72	134.44	130.40
27	23SA	2184	G	C5-C6-O6	-6.72	124.57	128.60
27	23SB	1532	G	C4-C5-N7	6.72	113.49	110.80
27	23SB	2492	C	C6-N1-C2	-6.72	117.61	120.30
27	23SA	2165	C	N1-C2-O2	-6.71	114.88	118.90
37	L15A	45	LEU	CB-CG-CD2	-6.71	99.60	111.00
27	23SA	91	G	C6-C5-N7	6.70	134.42	130.40
27	23SA	2180	G	N9-C4-C5	6.70	108.08	105.40
1	16SB	814	C	C6-N1-C2	-6.68	117.63	120.30
28	5SB	69	G	C6-C5-N7	-6.68	126.39	130.40
28	5SB	119	G	N3-C2-N2	-6.68	115.22	119.90
27	23SB	281	C	C2-N1-C1'	6.67	126.14	118.80
27	23SB	1533	G	C4-C5-N7	6.67	113.47	110.80
1	16SB	1030	A	O5'-P-OP2	-6.67	99.69	105.70
22	ASIA	19	G	C8-N9-C1'	6.67	135.67	127.00
25	MRNA	56	U	C2-N1-C1'	6.67	125.70	117.70
27	23SB	1021	G	N3-C4-N9	-6.67	122.00	126.00
22	ASIA	75	C	C5-C6-N1	6.67	124.33	121.00
27	23SA	2533	A	C4-N9-C1'	6.67	138.30	126.30
27	23SA	269	G	N3-C2-N2	-6.66	115.23	119.90
27	23SA	1532	G	N9-C4-C5	-6.66	102.73	105.40
27	23SB	1362	U	C2-N1-C1'	6.66	125.69	117.70
27	23SA	2234	G	C6-C5-N7	6.66	134.40	130.40
28	5SA	54	A	O4'-C1'-N9	6.66	113.52	108.20
27	23SA	988	A	O5'-P-OP1	-6.65	99.71	105.70
27	23SB	377	G	C5-C6-N1	-6.65	108.17	111.50
28	5SB	46	G	C6-C5-N7	6.65	134.39	130.40
1	16SB	1471	C	C5-C6-N1	6.63	124.32	121.00
1	16SB	2085	G	C6-C5-N7	-6.63	126.42	130.40
27	23SB	1065	G	N9-C4-C5	6.63	108.05	105.40
1	16SB	1069	G	N3-C4-N9	-6.63	122.02	126.00
27	23SB	624	G	C4-C5-N7	-6.63	108.15	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SA	1929	U	N3-C2-O2	-6.63	117.56	122.20
1	16SA	871	G	C6-C5-N7	6.63	134.38	130.40
27	23SA	1894	G	C6-C5-N7	6.62	134.37	130.40
27	23SB	1227	C	C2-N1-C1'	6.62	126.09	118.80
27	23SB	1665	A	O4'-C1'-N9	6.61	113.49	108.20
28	5SB	120	G	N3-C2-N2	-6.61	115.27	119.90
1	16SB	2085	G	N9-C4-C5	-6.61	102.75	105.40
27	23SB	392	G	N3-C4-N9	-6.61	122.03	126.00
27	23SB	367	G	N3-C2-N2	-6.61	115.27	119.90
24	ESIA	3	C	C6-N1-C2	-6.61	117.66	120.30
27	23SA	2752	G	C6-C5-N7	6.60	134.36	130.40
1	16SA	1621	G	C4-C5-N7	-6.59	108.16	110.80
27	23SB	377	G	N9-C4-C5	6.59	108.03	105.40
27	23SA	1421	U	C2-N3-C4	6.59	130.95	127.00
27	23SB	881	G	O5'-P-OP2	6.58	118.60	110.70
42	L20A	98	LEU	CA-CB-CG	6.58	130.44	115.30
27	23SA	267	C	C6-N1-C2	-6.58	117.67	120.30
27	23SA	1435	C	C6-N1-C2	-6.58	117.67	120.30
1	16SB	1757	C	C6-N1-C2	-6.58	117.67	120.30
25	MRNB	56	U	N1-C2-O2	6.58	127.40	122.80
1	16SA	796	G	N9-C4-C5	6.57	108.03	105.40
1	16SA	798	G	C5-C6-O6	-6.57	124.66	128.60
1	16SA	1928	U	N1-C2-O2	6.57	127.40	122.80
27	23SA	1157	C	P-O3'-C3'	6.57	127.58	119.70
27	23SA	877	U	C2-N1-C1'	6.56	125.57	117.70
27	23SA	2014	G	N3-C2-N2	-6.56	115.31	119.90
1	16SA	1855	C	N3-C2-O2	-6.55	117.31	121.90
27	23SA	700	G	N9-C4-C5	-6.55	102.78	105.40
1	16SB	1065	G	N3-C2-N2	-6.55	115.31	119.90
27	23SB	454	G	N9-C4-C5	-6.55	102.78	105.40
27	23SB	1545	A	N7-C8-N9	6.55	117.07	113.80
57	ASIB	41	C	C6-N1-C2	-6.54	117.68	120.30
27	23SB	311	C	C6-N1-C2	-6.53	117.69	120.30
27	23SB	1212	G	N1-C2-N2	6.53	122.08	116.20
28	5SB	23	G	N9-C4-C5	6.53	108.01	105.40
27	23SA	186	A	O4'-C1'-N9	6.53	113.42	108.20
1	16SB	997	A	O5'-P-OP2	-6.52	99.83	105.70
27	23SA	1466	C	C5-C6-N1	6.52	124.26	121.00
1	16SA	805	C	C2-N1-C1'	6.51	125.97	118.80
1	16SB	1346	C	N1-C2-O2	6.51	122.81	118.90
1	16SA	1748	G	N9-C4-C5	6.51	108.00	105.40
27	23SB	2322	G	C4-N9-C1'	6.51	134.97	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SA	1781	C	C6-N1-C2	-6.51	117.70	120.30
27	23SA	2696	C	P-O3'-C3'	6.51	127.51	119.70
27	23SB	1924	G	C2-N3-C4	-6.51	108.65	111.90
27	23SB	146	G	N3-C4-N9	-6.50	122.10	126.00
27	23SB	2211	G	C6-C5-N7	6.50	134.30	130.40
27	23SA	1924	G	C6-C5-N7	6.50	134.30	130.40
27	23SA	2505	G	C4-N9-C1'	6.50	134.95	126.50
27	23SA	2177	G	C4-C5-N7	6.50	113.40	110.80
27	23SA	928	G	C6-C5-N7	-6.49	126.50	130.40
27	23SB	2237	G	N3-C2-N2	-6.49	115.36	119.90
27	23SA	1808	C	N1-C2-O2	6.49	122.79	118.90
1	16SA	2007	G	N3-C2-N2	-6.49	115.36	119.90
1	16SA	871	G	N9-C4-C5	6.48	107.99	105.40
1	16SB	1562	G	N9-C4-C5	6.48	107.99	105.40
27	23SB	2184	G	C5-C6-N1	-6.48	108.26	111.50
27	23SB	2795	U	C2-N1-C1'	6.48	125.47	117.70
27	23SA	118	U	N3-C2-O2	-6.48	117.67	122.20
1	16SB	677	G	N3-C4-C5	6.48	131.84	128.60
1	16SB	1647	G	O4'-C1'-N9	6.47	113.38	108.20
27	23SB	53	G	N9-C4-C5	6.47	107.99	105.40
27	23SA	98	U	C2-N1-C1'	6.47	125.47	117.70
27	23SB	454	G	C4-C5-N7	6.47	113.39	110.80
1	16SB	777	C	C2-N1-C1'	6.47	125.91	118.80
27	23SB	629	G	N1-C6-O6	6.46	123.77	119.90
27	23SA	1101	C	C6-N1-C1'	-6.45	113.06	120.80
27	23SB	2211	G	N9-C4-C5	6.45	107.98	105.40
1	16SB	1973	A	P-O3'-C3'	6.45	127.44	119.70
1	16SA	1748	G	C4-C5-N7	-6.44	108.22	110.80
1	16SB	1653	C	N1-C2-O2	-6.44	115.04	118.90
1	16SB	1771	G	C4-C5-N7	-6.44	108.22	110.80
27	23SA	48	A	O5'-P-OP2	-6.44	99.91	105.70
22	ASIA	67	C	N3-C4-N4	6.44	122.51	118.00
23	PSIA	45	U	O4'-C1'-N1	6.44	113.35	108.20
27	23SA	1465	G	O4'-C1'-N9	6.43	113.35	108.20
1	16SB	785	G	C5-C6-O6	-6.43	124.74	128.60
27	23SB	1551	C	C6-N1-C2	-6.43	117.73	120.30
1	16SA	837	G	N3-C4-N9	6.43	129.86	126.00
1	16SB	1982	G	N3-C2-N2	-6.43	115.40	119.90
27	23SB	2341	C	C6-N1-C2	-6.43	117.73	120.30
27	23SB	1972	C	C5-C6-N1	6.42	124.21	121.00
27	23SB	2761	C	OP1-P-O3'	6.42	119.32	105.20
26	TRNA	3	C	C5-C4-N4	-6.41	115.71	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SA	2292	G	N3-C2-N2	-6.41	115.41	119.90
1	16SA	1471	C	C6-N1-C1'	-6.41	113.11	120.80
1	16SA	1648	G	O4'-C1'-N9	6.41	113.32	108.20
27	23SB	557	G	C8-N9-C1'	-6.41	118.67	127.00
1	16SA	730	C	C5-C4-N4	6.40	124.68	120.20
27	23SA	1217	G	C5-C6-O6	-6.40	124.76	128.60
1	16SB	871	G	N3-C2-N2	-6.40	115.42	119.90
1	16SB	1748	G	C4-C5-N7	-6.40	108.24	110.80
1	16SA	796	G	N3-C4-N9	-6.39	122.17	126.00
1	16SB	1985	U	C2-N3-C4	-6.39	123.17	127.00
1	16SA	1606	A	N1-C2-N3	6.39	132.49	129.30
27	23SB	1252	A	C2-N3-C4	-6.38	107.41	110.60
1	16SB	2013	G	C4-C5-N7	6.38	113.35	110.80
27	23SB	557	G	C4-N9-C1'	6.38	134.79	126.50
27	23SA	1883	G	N3-C2-N2	-6.38	115.44	119.90
27	23SB	2128	C	N1-C2-O2	6.38	122.73	118.90
1	16SA	798	G	C6-N1-C2	-6.38	121.27	125.10
1	16SA	805	C	C5-C6-N1	6.38	124.19	121.00
1	16SA	907	G	O4'-C1'-N9	-6.37	103.10	108.20
1	16SB	754	G	N3-C4-C5	-6.37	125.41	128.60
1	16SA	1616	G	N3-C4-N9	6.37	129.82	126.00
1	16SB	786	G	C6-C5-N7	6.37	134.22	130.40
1	16SB	1606	A	N1-C2-N3	6.37	132.48	129.30
27	23SA	216	G	O4'-C1'-N9	6.36	113.29	108.20
1	16SB	1837	C	N1-C2-O2	6.35	122.71	118.90
27	23SB	295	C	C2-N1-C1'	6.34	125.78	118.80
27	23SA	1652	A	O5'-P-OP1	-6.34	100.00	105.70
27	23SB	295	C	C6-N1-C1'	-6.34	113.19	120.80
27	23SB	1509	G	N3-C2-N2	-6.34	115.46	119.90
27	23SB	1817	A	O5'-P-OP1	6.34	118.31	110.70
27	23SB	1038	A	O5'-P-OP2	-6.34	100.00	105.70
1	16SB	986	C	C2-N1-C1'	6.33	125.77	118.80
1	16SA	667	G	O5'-P-OP1	-6.33	100.01	105.70
28	5SB	113	G	C6-C5-N7	6.33	134.19	130.40
1	16SA	1867	U	C2-N1-C1'	6.32	125.29	117.70
1	16SB	1900	G	N1-C2-N2	6.32	121.89	116.20
27	23SB	2211	G	C4-N9-C1'	-6.32	118.28	126.50
27	23SA	1381	G	C8-N9-C1'	-6.32	118.78	127.00
27	23SB	2211	G	C8-N9-C1'	6.32	135.21	127.00
40	L18B	56	LEU	CA-CB-CG	6.32	129.83	115.30
1	16SA	1477	G	N3-C2-N2	-6.31	115.48	119.90
27	23SA	2154	C	N3-C4-C5	6.31	124.42	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	5SB	91	G	C4-N9-C1'	6.31	134.71	126.50
27	23SA	1532	G	C4-C5-N7	6.31	113.32	110.80
27	23SB	1381	G	C4-N9-C1'	6.31	134.70	126.50
27	23SA	2133	C	N1-C2-O2	-6.30	115.12	118.90
1	16SB	1928	U	C2-N1-C1'	6.30	125.26	117.70
27	23SB	1456	C	C2-N1-C1'	6.30	125.73	118.80
1	16SA	1177	G	C6-C5-N7	-6.30	126.62	130.40
27	23SA	2533	A	C6-C5-N7	-6.30	127.89	132.30
27	23SA	2454	A	P-O3'-C3'	6.29	127.25	119.70
27	23SB	2357	C	C6-N1-C2	-6.29	117.78	120.30
27	23SA	1128	A	N9-C4-C5	-6.29	103.28	105.80
1	16SA	2073	G	C6-C5-N7	-6.29	126.63	130.40
27	23SA	1744	C	C2-N1-C1'	6.29	125.72	118.80
27	23SB	725	A	O4'-C1'-N9	6.29	113.23	108.20
27	23SA	2459	G	O5'-P-OP2	-6.28	100.05	105.70
27	23SB	204	G	O4'-C1'-N9	6.28	113.22	108.20
27	23SA	929	G	N9-C4-C5	6.28	107.91	105.40
1	16SB	1319	G	O4'-C1'-N9	6.27	113.22	108.20
57	ASIB	34	G	C4-N9-C1'	6.27	134.66	126.50
1	16SA	1899	G	C6-C5-N7	-6.27	126.64	130.40
27	23SA	1460	C	C2-N1-C1'	6.27	125.70	118.80
1	16SA	867	G	C6-C5-N7	-6.26	126.64	130.40
1	16SA	1899	G	N3-C4-N9	6.26	129.76	126.00
22	ASIA	19	G	C4-N9-C1'	-6.26	118.36	126.50
27	23SA	1505	G	O5'-P-OP2	-6.26	100.07	105.70
27	23SA	1532	G	N3-C4-N9	6.26	129.75	126.00
27	23SB	1939	C	C6-N1-C2	-6.26	117.80	120.30
27	23SA	1635	A	O5'-P-OP1	-6.25	100.07	105.70
27	23SA	1110	G	N3-C4-C5	6.25	131.72	128.60
28	5SA	67	C	N3-C4-N4	-6.25	113.63	118.00
57	ASIB	7	A	O4'-C1'-N9	-6.25	103.20	108.20
1	16SB	1771	G	C5-C6-O6	6.24	132.35	128.60
1	16SA	1682	C	N1-C2-O2	6.24	122.64	118.90
1	16SA	955	C	C2-N1-C1'	6.24	125.66	118.80
27	23SA	1533	G	N9-C4-C5	-6.24	102.91	105.40
27	23SA	2845	U	C2-N1-C1'	6.24	125.18	117.70
1	16SA	1851	G	N9-C4-C5	6.23	107.89	105.40
24	ESIA	28	G	C2-N3-C4	-6.23	108.78	111.90
27	23SA	877	U	N1-C2-O2	6.23	127.16	122.80
27	23SA	2533	A	N7-C8-N9	6.23	116.92	113.80
57	ASIB	41	C	C2-N1-C1'	6.22	125.64	118.80
27	23SA	2180	G	N3-C4-N9	-6.22	122.27	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SB	1757	C	N3-C4-C5	-6.22	119.41	121.90
1	16SA	1817	G	C8-N9-C4	6.21	108.89	106.40
1	16SB	2140	G	O5'-P-OP2	6.21	118.16	110.70
1	16SA	1221	G	N1-C6-O6	6.21	123.63	119.90
27	23SA	2396	C	N1-C2-O2	-6.21	115.17	118.90
27	23SB	2617	A	O5'-P-OP2	6.21	118.15	110.70
22	ASIA	2	C	N1-C2-O2	6.21	122.62	118.90
1	16SB	1924	C	P-O3'-C3'	6.20	127.14	119.70
1	16SA	2073	G	N3-C4-N9	6.20	129.72	126.00
1	16SB	1837	C	C6-N1-C1'	-6.20	113.37	120.80
27	23SB	1285	G	N1-C6-O6	-6.20	116.18	119.90
1	16SB	1616	G	C4-N9-C1'	6.19	134.55	126.50
1	16SA	1584	U	N3-C2-O2	-6.19	117.87	122.20
27	23SB	423	U	O5'-P-OP2	-6.19	100.13	105.70
27	23SA	228	C	C6-N1-C2	-6.19	117.82	120.30
1	16SB	1296	G	N3-C2-N2	-6.19	115.57	119.90
27	23SA	2630	U	O5'-P-OP1	-6.19	100.13	105.70
27	23SB	557	G	N9-C4-C5	-6.19	102.92	105.40
1	16SA	839	G	N3-C2-N2	-6.18	115.57	119.90
1	16SB	831	C	N1-C2-O2	-6.18	115.19	118.90
1	16SB	1754	U	N1-C2-O2	6.18	127.13	122.80
1	16SB	1963	C	P-O3'-C3'	6.18	127.12	119.70
1	16SA	787	G	C5-C6-O6	6.18	132.31	128.60
1	16SB	899	G	N3-C2-N2	-6.18	115.57	119.90
27	23SB	2488	U	C2-N1-C1'	6.18	125.12	117.70
1	16SA	1007	C	P-O3'-C3'	6.18	127.11	119.70
27	23SA	1217	G	C4-N9-C1'	6.18	134.53	126.50
28	5SB	91	G	C8-N9-C1'	-6.18	118.97	127.00
27	23SA	220	U	O5'-P-OP2	-6.17	100.14	105.70
27	23SB	629	G	N3-C4-N9	6.17	129.71	126.00
27	23SB	1882	A	O5'-P-OP2	6.17	118.11	110.70
1	16SA	1899	G	C4-C5-N7	6.17	113.27	110.80
28	5SB	72	C	C6-N1-C2	-6.17	117.83	120.30
27	23SA	605	C	C6-N1-C2	-6.16	117.83	120.30
27	23SB	992	A	O4'-C1'-N9	6.16	113.13	108.20
1	16SB	1069	G	C8-N9-C1'	6.16	135.01	127.00
1	16SB	1583	U	C2-N1-C1'	6.16	125.09	117.70
22	ASIA	67	C	C5-C4-N4	-6.16	115.89	120.20
24	ESIA	65	G	N9-C4-C5	-6.16	102.94	105.40
27	23SB	895	C	N1-C2-O2	6.16	122.60	118.90
27	23SB	1562	C	C5-C6-N1	6.16	124.08	121.00
27	23SB	1959	C	O5'-P-OP2	-6.16	100.16	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SA	995	G	C6-C5-N7	-6.15	126.71	130.40
27	23SA	57	G	O5'-P-OP2	-6.15	100.17	105.70
27	23SB	1634	C	C6-N1-C1'	-6.15	113.42	120.80
1	16SB	1900	G	C6-N1-C2	-6.15	121.41	125.10
27	23SB	285	G	C6-C5-N7	6.14	134.09	130.40
27	23SB	352	G	N9-C4-C5	6.14	107.86	105.40
1	16SA	1793	C	C2-N3-C4	-6.14	116.83	119.90
27	23SA	945	C	C5-C6-N1	6.14	124.07	121.00
22	ASIA	57	G	O4'-C1'-N9	6.14	113.11	108.20
1	16SB	1467	G	C6-C5-N7	6.13	134.08	130.40
28	5SB	23	G	C4-C5-N7	-6.13	108.35	110.80
27	23SA	1956	U	N1-C2-O2	6.13	127.09	122.80
27	23SA	1833	G	P-O3'-C3'	6.13	127.05	119.70
37	L15A	88	LEU	CA-CB-CG	6.13	129.39	115.30
27	23SB	2128	C	C5-C6-N1	6.12	124.06	121.00
27	23SB	462	C	C6-N1-C2	-6.12	117.85	120.30
1	16SA	716	G	C4-N9-C1'	6.12	134.46	126.50
27	23SB	1679	G	N3-C2-N2	-6.12	115.62	119.90
27	23SA	395	C	C6-N1-C1'	-6.12	113.46	120.80
27	23SB	153	C	C6-N1-C1'	-6.12	113.46	120.80
27	23SA	2333	G	C4-N9-C1'	6.11	134.45	126.50
1	16SB	1827	C	P-O3'-C3'	6.11	127.04	119.70
27	23SB	265	G	C6-C5-N7	6.11	134.07	130.40
1	16SB	1105	G	N9-C4-C5	-6.11	102.95	105.40
27	23SA	160	U	N1-C2-O2	6.11	127.08	122.80
1	16SA	1616	G	C6-C5-N7	-6.11	126.74	130.40
1	16SB	754	G	P-O3'-C3'	6.11	127.03	119.70
27	23SA	164	C	C6-N1-C2	-6.10	117.86	120.30
27	23SA	2150	G	N3-C4-N9	-6.10	122.34	126.00
1	16SA	1584	U	C5-C6-N1	-6.10	119.65	122.70
1	16SA	1817	G	C4-C5-N7	6.10	113.24	110.80
27	23SA	760	G	C6-C5-N7	6.10	134.06	130.40
27	23SA	2646	G	C6-C5-N7	6.10	134.06	130.40
27	23SA	699	C	C5-C4-N4	-6.09	115.94	120.20
27	23SB	53	G	C4-C5-N7	-6.09	108.36	110.80
1	16SB	1402	G	N9-C4-C5	6.09	107.83	105.40
27	23SB	2355	G	C6-C5-N7	6.09	134.05	130.40
28	5SA	33	C	C6-N1-C2	-6.09	117.87	120.30
27	23SB	2139	A	O4'-C1'-N9	6.09	113.07	108.20
1	16SA	836	G	P-O3'-C3'	6.08	126.99	119.70
1	16SA	1899	G	N9-C4-C5	-6.08	102.97	105.40
1	16SB	1554	C	C2-N3-C4	-6.08	116.86	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	PSIB	5	G	N3-C2-N2	-6.07	115.65	119.90
27	23SB	2890	G	N3-C2-N2	-6.07	115.65	119.90
1	16SB	733	C	C6-N1-C1'	-6.07	113.52	120.80
1	16SB	1867	U	P-O3'-C3'	6.07	126.98	119.70
27	23SA	929	G	C8-N9-C1'	6.06	134.88	127.00
1	16SB	940	G	N9-C4-C5	-6.06	102.97	105.40
27	23SB	91	G	C6-N1-C2	-6.06	121.46	125.10
27	23SB	1532	G	N1-C6-O6	6.06	123.54	119.90
27	23SA	2133	C	C2-N3-C4	-6.06	116.87	119.90
1	16SB	1513	G	O4'-C1'-N9	6.05	113.04	108.20
27	23SA	832	A	C5-N7-C8	-6.05	100.87	103.90
27	23SA	946	C	N3-C2-O2	-6.05	117.66	121.90
27	23SA	800	A	O5'-P-OP1	-6.05	100.25	105.70
27	23SB	931	G	C6-C5-N7	6.05	134.03	130.40
27	23SB	255	A	O4'-C1'-N9	6.05	113.04	108.20
27	23SB	359	C	C6-N1-C2	-6.05	117.88	120.30
27	23SA	725	A	N7-C8-N9	6.04	116.82	113.80
27	23SA	2505	G	N7-C8-N9	6.04	116.12	113.10
1	16SA	1330	C	P-O3'-C3'	6.04	126.95	119.70
27	23SA	1421	U	C5-C6-N1	6.04	125.72	122.70
27	23SA	2173	G	C4-C5-N7	6.04	113.22	110.80
27	23SB	360	C	C6-N1-C2	-6.04	117.88	120.30
27	23SB	1808	C	N1-C2-O2	6.04	122.53	118.90
27	23SA	1362	U	C2-N1-C1'	6.04	124.95	117.70
27	23SA	1734	C	C6-N1-C2	-6.04	117.88	120.30
27	23SB	378	G	N9-C4-C5	-6.04	102.98	105.40
27	23SB	91	G	N3-C2-N2	-6.04	115.67	119.90
27	23SA	699	C	C2-N1-C1'	6.03	125.44	118.80
1	16SA	1767	G	P-O3'-C3'	6.03	126.94	119.70
27	23SB	2492	C	C2-N1-C1'	6.03	125.44	118.80
27	23SB	285	G	C4-C5-N7	-6.03	108.39	110.80
27	23SA	1700	G	C6-C5-N7	6.03	134.01	130.40
27	23SB	2317	G	N1-C6-O6	-6.03	116.28	119.90
27	23SB	380	G	C6-N1-C2	-6.02	121.48	125.10
27	23SB	2204	C	N3-C4-N4	6.02	122.22	118.00
27	23SB	1097	C	N1-C2-O2	6.02	122.51	118.90
27	23SB	2470	G	N3-C2-N2	-6.02	115.68	119.90
1	16SB	1616	G	C8-N9-C1'	-6.02	119.17	127.00
27	23SB	1536	G	C6-C5-N7	6.02	134.01	130.40
1	16SB	2075	C	C2-N3-C4	-6.02	116.89	119.90
27	23SB	1017	C	C6-N1-C2	-6.02	117.89	120.30
27	23SB	875	U	OP1-P-O3'	6.02	118.43	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	1593	C	C2-N1-C1'	6.02	125.42	118.80
27	23SA	1936	PSU	OP2-P-O3'	6.01	118.42	105.20
27	23SB	1391	A	C2-N3-C4	-6.01	107.59	110.60
1	16SB	2023	C	C6-N1-C1'	-6.01	113.59	120.80
27	23SB	146	G	N3-C2-N2	-6.01	115.69	119.90
27	23SB	454	G	C6-C5-N7	-6.01	126.80	130.40
27	23SB	2454	A	P-O3'-C3'	6.01	126.91	119.70
1	16SA	1257	G	N3-C2-N2	-6.00	115.70	119.90
27	23SA	2454	A	C8-N9-C4	-6.00	103.40	105.80
27	23SB	715	G	N3-C2-N2	-6.00	115.70	119.90
1	16SA	1538	A	N1-C6-N6	-5.99	115.00	118.60
27	23SB	1533	G	N9-C4-C5	-5.99	103.00	105.40
1	16SA	858	C	N3-C4-N4	5.99	122.19	118.00
1	16SA	1910	G	C6-C5-N7	5.99	134.00	130.40
9	S9A	85	LEU	CA-CB-CG	5.99	129.08	115.30
1	16SB	778	G	C6-C5-N7	-5.99	126.81	130.40
27	23SB	162	C	C5-C4-N4	-5.99	116.01	120.20
27	23SA	1110	G	N3-C2-N2	-5.99	115.71	119.90
28	5SA	21	G	N9-C4-C5	-5.99	103.01	105.40
1	16SA	1809	G	C8-N9-C1'	5.98	134.78	127.00
27	23SA	420	C	C2-N1-C1'	5.98	125.38	118.80
1	16SB	1095	C	C2-N1-C1'	5.98	125.38	118.80
1	16SB	826	C	C6-N1-C2	-5.98	117.91	120.30
27	23SB	202	G	C4-C5-N7	-5.97	108.41	110.80
27	23SA	945	C	C5-C4-N4	-5.97	116.02	120.20
27	23SA	1748	A	C6-C5-N7	-5.97	128.12	132.30
1	16SB	778	G	C4-C5-N7	5.97	113.19	110.80
1	16SB	1974	G	OP1-P-O3'	5.97	118.33	105.20
1	16SA	1352	U	C6-N1-C1'	-5.97	112.85	121.20
1	16SA	1660	G	C4-C5-N7	5.97	113.19	110.80
27	23SA	1217	G	C8-N9-C1'	-5.96	119.25	127.00
1	16SB	1899	G	N3-C4-N9	5.96	129.58	126.00
27	23SA	160	U	C2-N1-C1'	5.96	124.85	117.70
1	16SA	805	C	C5-C4-N4	5.96	124.37	120.20
1	16SA	1752	G	C6-N1-C2	-5.96	121.53	125.10
27	23SA	1155	G	C6-N1-C2	-5.96	121.52	125.10
27	23SB	1021	G	C6-C5-N7	5.96	133.97	130.40
27	23SB	2886	A	C5-N7-C8	-5.96	100.92	103.90
27	23SB	1277	G	N3-C2-N2	-5.96	115.73	119.90
22	ASIA	19	G	C6-N1-C2	-5.96	121.53	125.10
27	23SA	2322	G	C4-N9-C1'	5.95	134.24	126.50
27	23SB	1518	C	O5'-P-OP1	5.95	117.84	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	2421	U	O5'-P-OP1	-5.95	100.34	105.70
27	23SB	1545	A	C8-N9-C4	-5.95	103.42	105.80
1	16SB	720	C	N3-C4-N4	5.95	122.16	118.00
28	5SB	68	A	C4-N9-C1'	5.94	137.00	126.30
1	16SA	2073	G	C5-C6-O6	-5.94	125.03	128.60
27	23SA	1813	U	O4'-C1'-N1	5.94	112.95	108.20
1	16SA	1352	U	N1-C2-O2	5.94	126.96	122.80
1	16SB	1279	G	N3-C2-N2	-5.94	115.74	119.90
27	23SA	1110	G	N1-C2-N3	5.93	127.46	123.90
1	16SA	871	G	N3-C4-N9	-5.93	122.44	126.00
27	23SA	909	U	C4-C5-C6	5.93	123.26	119.70
27	23SB	1748	A	O4'-C1'-N9	5.93	112.94	108.20
1	16SB	1928	U	N1-C2-O2	5.93	126.95	122.80
27	23SB	2647	A	O5'-P-OP1	5.93	117.81	110.70
27	23SB	1240	G	C5-C6-O6	5.93	132.16	128.60
28	5SB	68	A	P-O3'-C3'	5.93	126.81	119.70
1	16SA	1929	U	C5-C6-N1	5.92	125.66	122.70
27	23SB	92	C	C2-N1-C1'	5.92	125.31	118.80
1	16SB	1116	U	O5'-P-OP1	-5.92	100.38	105.70
1	16SB	2085	G	N1-C6-O6	5.92	123.45	119.90
27	23SA	2220	C	OP2-P-O3'	5.91	118.21	105.20
27	23SB	178	G	C6-C5-N7	5.91	133.95	130.40
22	ASIA	19	G	C4-C5-N7	-5.91	108.44	110.80
27	23SA	2421	U	P-O3'-C3'	5.91	126.79	119.70
1	16SB	784	G	C6-C5-N7	5.91	133.95	130.40
27	23SB	2017	G	P-O3'-C3'	5.91	126.79	119.70
27	23SA	2142	A	O4'-C1'-N9	5.91	112.92	108.20
28	5SA	20	G	N1-C2-N2	5.91	121.52	116.20
24	ESIB	58	A	OP1-P-O3'	5.91	118.19	105.20
27	23SA	2505	G	C5-N7-C8	-5.90	101.35	104.30
27	23SB	278	G	N3-C2-N2	-5.90	115.77	119.90
27	23SB	1363	C	C6-N1-C1'	-5.90	113.72	120.80
27	23SB	1906	C	C6-N1-C2	-5.90	117.94	120.30
27	23SA	832	A	C4-C5-N7	5.90	113.65	110.70
1	16SB	1985	U	N1-C2-N3	5.90	118.44	114.90
28	5SB	69	G	N9-C4-C5	-5.90	103.04	105.40
27	23SA	1537	G	N3-C2-N2	-5.89	115.78	119.90
27	23SA	114	C	N1-C2-O2	-5.88	115.37	118.90
27	23SA	2845	U	P-O3'-C3'	5.88	126.76	119.70
27	23SB	1790	G	N9-C4-C5	5.88	107.75	105.40
1	16SA	1660	G	N9-C4-C5	-5.88	103.05	105.40
27	23SB	87	G	C4-C5-N7	5.88	113.15	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	378	G	C4-C5-N7	5.88	113.15	110.80
27	23SB	2899	G	N3-C2-N2	-5.88	115.78	119.90
28	5SB	46	G	N3-C4-N9	-5.88	122.47	126.00
27	23SA	2521	U	C2-N1-C1'	5.88	124.75	117.70
1	16SB	1069	G	C4-N9-C1'	-5.88	118.86	126.50
27	23SB	2844	G	C6-C5-N7	5.88	133.93	130.40
1	16SA	1002	G	C6-C5-N7	-5.88	126.88	130.40
27	23SA	91	G	N9-C4-C5	5.88	107.75	105.40
1	16SB	1330	C	P-O3'-C3'	5.87	126.75	119.70
27	23SB	1329	G	C4-C5-N7	5.87	113.15	110.80
27	23SB	2207	G	C4-C5-N7	-5.87	108.45	110.80
1	16SA	1286	G	N9-C4-C5	5.87	107.75	105.40
27	23SB	1252	A	P-O3'-C3'	5.87	126.74	119.70
27	23SA	2445	A	C2-N3-C4	-5.86	107.67	110.60
27	23SB	1280	G	N9-C4-C5	5.86	107.75	105.40
27	23SB	1381	G	C8-N9-C1'	-5.86	119.38	127.00
1	16SA	1753	U	OP1-P-O3'	5.86	118.08	105.20
1	16SB	1900	G	N3-C4-N9	-5.86	122.49	126.00
1	16SA	828	C	N1-C2-O2	-5.85	115.39	118.90
27	23SB	87	G	C6-C5-N7	-5.85	126.89	130.40
1	16SB	1786	C	C2-N1-C1'	5.85	125.23	118.80
27	23SB	367	G	C6-N1-C2	-5.85	121.59	125.10
1	16SB	1206	G	C6-C5-N7	5.85	133.91	130.40
27	23SB	1494	A	O4'-C1'-N9	5.85	112.88	108.20
1	16SA	1565	G	O5'-P-OP2	-5.84	100.44	105.70
27	23SA	100	G	C4-C5-N7	5.84	113.14	110.80
27	23SA	1695	G	P-O3'-C3'	5.84	126.71	119.70
27	23SB	2328	C	C6-N1-C2	-5.84	117.96	120.30
1	16SB	1367	C	C6-N1-C2	-5.84	117.96	120.30
1	16SA	798	G	C4-C5-N7	-5.84	108.46	110.80
1	16SA	1013	C	C6-N1-C1'	-5.84	113.79	120.80
27	23SB	1532	G	N9-C4-C5	-5.84	103.06	105.40
23	PSIB	1	G	C6-C5-N7	-5.84	126.90	130.40
27	23SB	174	C	C6-N1-C2	-5.83	117.97	120.30
27	23SA	160	U	N3-C2-O2	-5.83	118.12	122.20
1	16SA	1666	C	C5-C4-N4	-5.83	116.12	120.20
27	23SA	2133	C	C2-N1-C1'	-5.83	112.39	118.80
27	23SB	73	A	N9-C4-C5	-5.83	103.47	105.80
27	23SB	624	G	C5-C6-O6	5.83	132.09	128.60
27	23SB	877	U	C2-N1-C1'	5.83	124.69	117.70
27	23SA	839	C	O5'-P-OP2	-5.82	100.46	105.70
27	23SA	279	G	C6-C5-N7	5.82	133.89	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SA	140	A	O4'-C1'-N9	5.82	112.86	108.20
27	23SA	1155	G	C8-N9-C4	-5.82	104.07	106.40
1	16SB	733	C	N3-C4-N4	5.82	122.07	118.00
27	23SA	835	C	C6-N1-C2	5.82	122.63	120.30
27	23SB	53	G	N1-C2-N2	5.81	121.43	116.20
1	16SA	1475	G	N3-C2-N2	-5.81	115.83	119.90
27	23SB	1975	G	O4'-C1'-N9	5.81	112.85	108.20
1	16SB	1616	G	C5-C6-O6	-5.80	125.12	128.60
1	16SA	1069	G	P-O3'-C3'	5.80	126.66	119.70
1	16SA	1472	C	C6-N1-C2	-5.80	117.98	120.30
27	23SA	424	G	N3-C2-N2	-5.80	115.84	119.90
1	16SB	959	G	C5-C6-O6	-5.80	125.12	128.60
1	16SB	1757	C	C6-N1-C1'	-5.80	113.84	120.80
27	23SA	2221	C	C6-N1-C2	-5.79	117.98	120.30
1	16SB	940	G	C4-C5-N7	5.79	113.12	110.80
1	16SA	1354	G	C6-C5-N7	5.79	133.87	130.40
27	23SA	535	G	C4-N9-C1'	5.78	134.01	126.50
27	23SB	2204	C	C5-C4-N4	-5.78	116.16	120.20
27	23SA	2126	G	C6-C5-N7	5.78	133.87	130.40
22	ASIA	1	G	N9-C4-C5	-5.77	103.09	105.40
23	PSIA	3	C	C6-N1-C2	-5.77	117.99	120.30
1	16SA	1456	U	C2-N1-C1'	5.77	124.62	117.70
27	23SA	1469	U	P-O3'-C3'	5.77	126.62	119.70
1	16SB	1206	G	C4-C5-N7	-5.77	108.49	110.80
27	23SB	432	C	C6-N1-C2	-5.77	117.99	120.30
27	23SB	1212	G	N9-C4-C5	5.76	107.70	105.40
27	23SA	928	G	N9-C4-C5	-5.76	103.10	105.40
1	16SB	1243	A	N9-C4-C5	-5.76	103.50	105.80
27	23SB	2544	G	C4-N9-C1'	5.76	133.99	126.50
28	5SB	120	G	N3-C4-N9	-5.76	122.54	126.00
1	16SA	1649	U	P-O3'-C3'	5.76	126.61	119.70
27	23SA	1748	A	O4'-C1'-N9	5.76	112.81	108.20
27	23SB	1465	G	C4-N9-C1'	-5.76	119.02	126.50
57	ASIB	72	C	N1-C2-O2	5.75	122.35	118.90
27	23SB	1381	G	C5-N7-C8	-5.75	101.42	104.30
1	16SA	846	C	N1-C2-O2	5.75	122.35	118.90
27	23SA	255	A	N9-C4-C5	5.75	108.10	105.80
1	16SB	1316	A	P-O3'-C3'	5.75	126.60	119.70
27	23SB	2128	C	C5-C4-N4	5.75	124.23	120.20
27	23SB	2887	C	C2-N1-C1'	5.75	125.13	118.80
1	16SA	1114	G	P-O3'-C3'	5.75	126.60	119.70
57	ASIB	34	G	C8-N9-C1'	-5.75	119.53	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	2317	G	C4-C5-N7	-5.75	108.50	110.80
28	5SB	69	G	C4-C5-N7	5.75	113.10	110.80
27	23SA	2361	A	P-O3'-C3'	5.75	126.59	119.70
22	ASIA	56	C	C6-N1-C2	-5.74	118.00	120.30
27	23SA	2535	C	O5'-P-OP2	-5.74	100.53	105.70
1	16SB	785	G	C4-C5-N7	-5.74	108.50	110.80
1	16SB	826	C	C5-C6-N1	5.74	123.87	121.00
27	23SB	2357	C	C2-N1-C1'	5.74	125.11	118.80
27	23SA	1577	A	O4'-C1'-N9	5.74	112.79	108.20
27	23SB	555	A	N1-C2-N3	5.74	132.17	129.30
27	23SB	903	G	N9-C4-C5	5.74	107.69	105.40
28	5SB	6	C	C2-N1-C1'	5.74	125.11	118.80
1	16SA	846	C	C2-N1-C1'	5.73	125.11	118.80
27	23SB	1975	G	C4-N9-C1'	5.73	133.95	126.50
1	16SB	1276	C	N1-C2-O2	-5.73	115.46	118.90
27	23SB	153	C	C5-C4-N4	-5.73	116.19	120.20
27	23SB	2207	G	N1-C2-N2	5.73	121.35	116.20
27	23SB	725	A	C5-N7-C8	-5.72	101.04	103.90
57	ASIB	55	U	N1-C2-O2	5.72	126.80	122.80
23	PSIB	74	C	N1-C2-O2	5.72	122.33	118.90
27	23SB	557	G	N3-C4-N9	5.72	129.43	126.00
27	23SB	1562	C	C2-N1-C1'	5.72	125.09	118.80
27	23SA	1217	G	C4-C5-N7	5.72	113.09	110.80
1	16SA	1171	G	N3-C2-N2	-5.72	115.90	119.90
27	23SA	1421	U	N1-C2-N3	-5.72	111.47	114.90
27	23SA	2173	G	C5-C6-O6	-5.72	125.17	128.60
24	ESIA	49	C	N3-C4-N4	-5.71	114.00	118.00
22	ASIA	19	G	C6-C5-N7	5.71	133.83	130.40
27	23SB	1939	C	C2-N1-C1'	5.71	125.08	118.80
28	5SB	23	G	N1-C6-O6	-5.71	116.47	119.90
1	16SB	1735	C	N1-C2-O2	5.71	122.33	118.90
27	23SA	2208	C	C6-N1-C2	-5.71	118.02	120.30
1	16SB	1434	C	N1-C2-O2	5.71	122.32	118.90
1	16SB	2085	G	C5-C6-O6	-5.71	125.18	128.60
27	23SB	1906	C	C2-N1-C1'	5.71	125.08	118.80
27	23SA	929	G	C4-N9-C1'	-5.70	119.08	126.50
22	ASIA	1	G	C4-C5-N7	5.70	113.08	110.80
27	23SB	2886	A	C8-N9-C4	-5.70	103.52	105.80
36	L14B	91	LEU	CA-CB-CG	5.70	128.41	115.30
28	5SB	23	G	N3-C4-N9	-5.70	122.58	126.00
26	TRNA	3	C	C6-N1-C1'	-5.69	113.97	120.80
27	23SA	48	A	N7-C8-N9	-5.69	110.95	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	202	G	N9-C4-C5	5.69	107.68	105.40
28	5SB	5	C	C2-N1-C1'	5.69	125.06	118.80
57	ASIB	29	G	C6-C5-N7	5.69	133.81	130.40
27	23SB	1924	G	N9-C4-C5	5.68	107.67	105.40
27	23SB	2839	A	O5'-P-OP2	-5.68	100.58	105.70
27	23SA	2287	U	C5-C4-O4	5.68	129.31	125.90
27	23SB	2216	G	P-O3'-C3'	5.68	126.52	119.70
27	23SA	1217	G	N3-C4-N9	5.68	129.41	126.00
1	16SB	1748	G	N9-C4-C5	5.68	107.67	105.40
27	23SB	2301	A	O5'-P-OP1	-5.68	100.59	105.70
27	23SA	218	A	OP1-P-O3'	5.68	117.69	105.20
27	23SB	1421	U	C2-N3-C4	5.68	130.41	127.00
27	23SB	1465	G	C6-C5-N7	5.68	133.81	130.40
27	23SA	278	G	C6-C5-N7	5.67	133.81	130.40
27	23SB	1515	G	C6-C5-N7	5.67	133.80	130.40
27	23SB	1758	C	C6-N1-C2	-5.67	118.03	120.30
27	23SA	1899	G	O4'-C1'-N9	-5.67	103.66	108.20
27	23SB	264	C	C2-N3-C4	-5.67	117.06	119.90
37	L15B	85	LEU	CA-CB-CG	5.67	128.35	115.30
27	23SA	2322	G	C8-N9-C1'	-5.67	119.63	127.00
1	16SB	814	C	C2-N1-C1'	5.67	125.04	118.80
23	PSIA	1	G	C4-N9-C1'	5.67	133.87	126.50
27	23SB	87	G	N9-C4-C5	-5.67	103.13	105.40
27	23SB	1790	G	N3-C4-N9	-5.67	122.60	126.00
27	23SA	391	G	C6-C5-N7	5.67	133.80	130.40
27	23SB	27	G	N9-C4-C5	5.67	107.67	105.40
27	23SB	628	A	P-O3'-C3'	5.66	126.50	119.70
1	16SA	1758	A	O4'-C1'-N9	-5.66	103.67	108.20
27	23SB	581	G	C4-N9-C1'	5.66	133.86	126.50
1	16SA	1626	G	C5-C6-O6	-5.66	125.20	128.60
1	16SA	1777	C	N1-C2-O2	5.66	122.30	118.90
27	23SB	392	G	C8-N9-C4	-5.66	104.14	106.40
1	16SA	706	A	P-O3'-C3'	5.66	126.49	119.70
1	16SB	1079	G	C5-C6-O6	-5.66	125.21	128.60
27	23SA	73	A	C2-N3-C4	-5.66	107.77	110.60
1	16SB	736	G	C6-N1-C2	-5.65	121.71	125.10
27	23SA	204	G	O4'-C1'-N9	5.65	112.72	108.20
1	16SB	2066	G	C6-C5-N7	-5.65	127.01	130.40
1	16SB	1905	U	O5'-P-OP2	-5.65	100.62	105.70
27	23SB	281	C	N1-C2-O2	5.65	122.29	118.90
27	23SA	1588	G	C5-C6-O6	-5.65	125.21	128.60
27	23SA	2173	G	N9-C4-C5	-5.65	103.14	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SA	2670	G	C4-N9-C1'	-5.64	119.16	126.50
27	23SB	1103	G	C8-N9-C1'	-5.64	119.67	127.00
23	PSIB	3	C	N1-C2-O2	5.64	122.28	118.90
27	23SA	1158	G	C4-N9-C1'	-5.64	119.17	126.50
27	23SA	1010	U	O5'-P-OP2	-5.64	100.63	105.70
27	23SA	1907	C	C5-C6-N1	5.64	123.82	121.00
1	16SB	1827	C	N1-C2-O2	5.64	122.28	118.90
1	16SA	846	C	C6-N1-C2	-5.63	118.05	120.30
1	16SB	1769	C	C6-N1-C1'	5.63	127.56	120.80
1	16SB	1928	U	N3-C2-O2	-5.63	118.26	122.20
27	23SB	2211	G	N1-C2-N2	5.63	121.27	116.20
27	23SB	2229	C	N3-C4-N4	-5.63	114.06	118.00
27	23SB	2431	C	C6-N1-C2	-5.63	118.05	120.30
1	16SB	1634	G	N3-C2-N2	-5.63	115.96	119.90
27	23SA	2184	G	N1-C6-O6	5.63	123.28	119.90
27	23SB	1227	C	C6-N1-C1'	-5.63	114.05	120.80
27	23SA	100	G	N9-C4-C5	-5.62	103.15	105.40
34	L9A	133	HIS	C-N-CD	-5.62	108.22	120.60
27	23SB	2437	A	P-O3'-C3'	5.62	126.45	119.70
27	23SB	629	G	C6-C5-N7	-5.62	127.03	130.40
27	23SB	1784	G	N1-C6-O6	-5.62	116.53	119.90
1	16SA	796	G	C6-C5-N7	5.62	133.77	130.40
1	16SA	1933	A	N7-C8-N9	5.62	116.61	113.80
1	16SB	1845	C	C2-N1-C1'	5.62	124.98	118.80
27	23SB	433	U	N1-C2-O2	5.62	126.73	122.80
28	5SB	33	C	C2-N1-C1'	5.62	124.98	118.80
27	23SB	877	U	N1-C2-O2	5.61	126.73	122.80
27	23SB	772	G	C6-C5-N7	5.61	133.77	130.40
27	23SA	1697	G	O4'-C1'-N9	-5.61	103.71	108.20
27	23SB	1496	C	C6-N1-C2	-5.61	118.06	120.30
27	23SB	1505	G	O5'-P-OP2	5.61	117.43	110.70
27	23SA	1159	A	O4'-C1'-N9	5.61	112.69	108.20
27	23SA	400	G	OP2-P-O3'	5.61	117.53	105.20
27	23SB	462	C	N3-C4-N4	-5.60	114.08	118.00
27	23SB	1532	G	C6-C5-N7	-5.60	127.04	130.40
27	23SB	295	C	N3-C4-N4	5.60	121.92	118.00
27	23SB	1089	C	C6-N1-C2	-5.60	118.06	120.30
27	23SA	539	G	O4'-C1'-N9	5.60	112.68	108.20
1	16SA	1752	G	N3-C2-N2	-5.60	115.98	119.90
27	23SA	1158	G	O4'-C1'-N9	5.60	112.68	108.20
1	16SB	1900	G	C4-C5-N7	-5.60	108.56	110.80
27	23SB	2014	G	N3-C2-N2	-5.60	115.98	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	2461	G	N1-C6-O6	-5.60	116.54	119.90
28	5SB	46	G	N9-C4-C5	5.60	107.64	105.40
27	23SA	535	G	C8-N9-C1'	-5.60	119.72	127.00
27	23SA	465	C	N3-C2-O2	-5.59	117.98	121.90
1	16SB	1319	G	C4-N9-C1'	5.59	133.77	126.50
1	16SB	1777	C	C6-N1-C2	-5.59	118.06	120.30
1	16SB	2092	G	C5-C6-O6	-5.59	125.24	128.60
27	23SB	1809	U	C5-C4-O4	-5.59	122.54	125.90
27	23SB	772	G	N1-C6-O6	-5.59	116.54	119.90
27	23SA	2808	G	N3-C4-N9	-5.59	122.64	126.00
27	23SA	2906	G	O4'-C1'-N9	5.59	112.67	108.20
27	23SB	2886	A	N1-C2-N3	5.59	132.10	129.30
1	16SB	1769	C	N3-C2-O2	-5.59	117.99	121.90
1	16SA	1177	G	N3-C4-N9	5.59	129.35	126.00
27	23SA	2533	A	C8-N9-C1'	-5.59	117.64	127.70
1	16SB	1224	G	N3-C4-N9	5.59	129.35	126.00
27	23SA	2027	G	C5-N7-C8	-5.59	101.51	104.30
27	23SB	360	C	C2-N1-C1'	5.59	124.94	118.80
27	23SB	1084	G	N3-C4-N9	-5.59	122.65	126.00
1	16SA	1085	G	C6-C5-N7	5.58	133.75	130.40
12	S12B	44	LYS	C-N-CD	-5.58	108.32	120.60
24	ESIA	28	G	C6-C5-N7	-5.58	127.05	130.40
27	23SA	1833	G	O4'-C1'-N9	-5.58	103.74	108.20
1	16SA	2125	A	C6-C5-N7	-5.58	128.40	132.30
27	23SA	1608	A	P-O3'-C3'	5.58	126.39	119.70
27	23SB	1796	A	OP2-P-O3'	5.58	117.47	105.20
27	23SB	2742	U	O4'-C1'-N1	5.58	112.66	108.20
28	5SB	108	G	N3-C2-N2	-5.58	116.00	119.90
24	ESIA	6	G	C6-N1-C2	-5.57	121.76	125.10
27	23SB	27	G	N3-C2-N2	-5.57	116.00	119.90
27	23SB	1818	A	O5'-P-OP2	-5.57	100.68	105.70
24	ESIA	65	G	C6-C5-N7	-5.57	127.06	130.40
27	23SA	2085	A	P-O3'-C3'	5.57	126.38	119.70
1	16SA	2125	A	N1-C6-N6	5.57	121.94	118.60
27	23SA	555	A	P-O3'-C3'	5.57	126.38	119.70
1	16SB	654	A	O5'-P-OP1	-5.57	100.69	105.70
27	23SB	465	C	N1-C2-O2	5.57	122.24	118.90
1	16SA	1402	G	O5'-P-OP2	-5.56	100.69	105.70
1	16SA	2098	G	N1-C6-O6	-5.56	116.56	119.90
27	23SA	2180	G	N3-C2-N2	-5.56	116.00	119.90
27	23SA	2385	G	N3-C2-N2	-5.56	116.00	119.90
27	23SB	2293	A	O4'-C1'-N9	5.56	112.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SA	742	C	N1-C2-O2	-5.56	115.56	118.90
1	16SB	1845	C	C6-N1-C2	-5.56	118.08	120.30
23	PSIB	10	G	N1-C6-O6	5.56	123.24	119.90
27	23SB	1097	C	C2-N1-C1'	5.56	124.92	118.80
1	16SB	1887	C	C6-N1-C2	-5.55	118.08	120.30
27	23SB	296	C	C2-N1-C1'	5.55	124.91	118.80
27	23SB	1139	G	N3-C4-N9	-5.55	122.67	126.00
27	23SB	2322	G	C8-N9-C1'	-5.55	119.78	127.00
27	23SA	2177	G	N9-C4-C5	-5.55	103.18	105.40
27	23SA	2728	A	N7-C8-N9	5.55	116.58	113.80
1	16SB	785	G	N1-C2-N2	5.55	121.20	116.20
27	23SB	2442	C	N1-C2-O2	-5.55	115.57	118.90
27	23SA	2184	G	N9-C4-C5	-5.55	103.18	105.40
27	23SB	1703	G	P-O3'-C3'	5.55	126.36	119.70
27	23SB	2124	U	C2-N1-C1'	5.55	124.36	117.70
27	23SB	2730	G	C6-C5-N7	-5.55	127.07	130.40
1	16SA	1536	A	P-O3'-C3'	5.55	126.36	119.70
27	23SA	1110	G	N9-C4-C5	5.55	107.62	105.40
27	23SB	760	G	C6-N1-C2	-5.54	121.78	125.10
1	16SA	796	G	N1-C2-N2	5.54	121.19	116.20
1	16SB	1536	A	P-O3'-C3'	5.54	126.35	119.70
1	16SB	1603	C	C6-N1-C2	-5.54	118.08	120.30
27	23SB	769	C	C6-N1-C2	-5.54	118.08	120.30
1	16SA	1221	G	C6-N1-C2	-5.54	121.78	125.10
22	ASIA	74	C	O4'-C1'-N1	5.54	112.63	108.20
27	23SA	2361	A	OP2-P-O3'	5.54	117.38	105.20
28	5SA	67	C	C5-C4-N4	5.54	124.08	120.20
1	16SB	1571	C	C6-N1-C2	-5.54	118.09	120.30
24	ESIB	21	A	C2-N3-C4	5.54	113.37	110.60
27	23SB	431	U	P-O3'-C3'	5.53	126.34	119.70
1	16SA	776	C	C2-N1-C1'	5.53	124.88	118.80
27	23SA	1975	G	N7-C8-N9	5.53	115.86	113.10
1	16SB	1771	G	N3-C2-N2	-5.53	116.03	119.90
1	16SB	1949	C	N1-C2-O2	5.53	122.22	118.90
28	5SA	21	G	C5-N7-C8	-5.53	101.54	104.30
1	16SB	1297	G	C6-C5-N7	5.53	133.72	130.40
1	16SB	2094	G	N3-C2-N2	-5.53	116.03	119.90
27	23SA	1975	G	C8-N9-C1'	-5.53	119.82	127.00
27	23SB	2890	G	C4-C5-N7	-5.52	108.59	110.80
27	23SA	1069	A	C2-N3-C4	-5.52	107.84	110.60
1	16SB	2092	G	N3-C2-N2	-5.52	116.03	119.90
28	5SB	68	A	C8-N9-C1'	-5.52	117.76	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SA	2278	C	N1-C2-O2	-5.52	115.59	118.90
1	16SB	1562	G	C6-N1-C2	-5.52	121.79	125.10
28	5SB	12	C	C2-N1-C1'	5.52	124.87	118.80
27	23SA	1381	G	N3-C4-N9	5.52	129.31	126.00
24	ESIA	3	C	C5-C6-N1	5.52	123.76	121.00
1	16SA	702	U	C5-C4-O4	-5.51	122.59	125.90
27	23SA	1163	G	C6-C5-N7	5.51	133.71	130.40
27	23SA	1562	C	C6-N1-C2	-5.51	118.09	120.30
27	23SB	2540	G	N3-C4-N9	-5.51	122.69	126.00
1	16SA	858	C	C2-N1-C1'	5.51	124.86	118.80
27	23SA	2647	A	O5'-P-OP2	5.51	117.31	110.70
1	16SA	907	G	C4-N9-C1'	5.51	133.66	126.50
1	16SB	809	C	C6-N1-C2	-5.50	118.10	120.30
27	23SA	2490	C	C5-C6-N1	5.50	123.75	121.00
1	16SB	2007	G	N1-C6-O6	-5.50	116.60	119.90
1	16SB	1786	C	N1-C2-O2	5.50	122.20	118.90
27	23SB	2184	G	C6-C5-N7	-5.50	127.10	130.40
27	23SB	2741	A	P-O3'-C3'	5.50	126.30	119.70
51	L30B	53	LEU	CA-CB-CG	5.50	127.95	115.30
1	16SA	2121	UR3	P-O3'-C3'	5.50	126.30	119.70
47	L25A	59	LEU	CA-CB-CG	5.50	127.95	115.30
1	16SA	785	G	N9-C4-C5	-5.50	103.20	105.40
27	23SB	1548	C	O5'-P-OP2	-5.50	100.75	105.70
1	16SA	798	G	N1-C6-O6	5.49	123.19	119.90
1	16SB	1536	A	OP2-P-O3'	5.49	117.28	105.20
27	23SB	576	G	N3-C2-N2	-5.49	116.06	119.90
1	16SB	1912	A	P-O3'-C3'	5.49	126.29	119.70
22	ASIA	74	C	C2-N1-C1'	5.48	124.83	118.80
27	23SB	1545	A	O4'-C1'-N9	5.48	112.58	108.20
1	16SA	677	G	P-O3'-C3'	5.48	126.28	119.70
25	MRNA	56	U	N1-C2-O2	5.48	126.63	122.80
27	23SA	2130	C	C2-N1-C1'	-5.48	112.78	118.80
1	16SA	777	C	C5-C4-N4	-5.47	116.37	120.20
24	ESIA	28	G	C5-C6-N1	-5.47	108.76	111.50
27	23SB	975	G	N3-C2-N2	-5.47	116.07	119.90
27	23SA	206	A	OP1-P-O3'	-5.47	93.16	105.20
1	16SB	1104	G	N1-C6-O6	-5.47	116.62	119.90
1	16SB	1756	C	C6-N1-C2	-5.47	118.11	120.30
1	16SA	1939	G	C2-N3-C4	5.47	114.64	111.90
27	23SA	809	G	C6-C5-N7	5.47	133.68	130.40
27	23SA	1210	C	N1-C2-O2	-5.47	115.62	118.90
1	16SB	1002	G	C4-C5-N7	5.47	112.99	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	1065	G	C4-C5-N7	-5.47	108.61	110.80
1	16SA	1724	C	C6-N1-C2	-5.47	118.11	120.30
27	23SA	42	G	N1-C6-O6	-5.47	116.62	119.90
27	23SB	629	G	N9-C4-C5	-5.47	103.21	105.40
1	16SA	1616	G	C4-N9-C1'	5.47	133.61	126.50
27	23SA	2180	G	C4-C5-N7	-5.47	108.61	110.80
1	16SA	1013	C	N1-C2-O2	5.46	122.18	118.90
1	16SA	1621	G	C6-N1-C2	-5.46	121.82	125.10
27	23SA	1021	G	C4-N9-C1'	-5.46	119.40	126.50
23	PSIB	1	G	N9-C4-C5	-5.46	103.22	105.40
27	23SB	1196	C	N1-C2-O2	-5.46	115.62	118.90
27	23SB	1381	G	C6-C5-N7	-5.46	127.12	130.40
27	23SA	699	C	C5-C6-N1	5.46	123.73	121.00
27	23SA	2736	U	N3-C4-O4	5.46	123.22	119.40
23	PSIB	10	G	O5'-P-OP1	-5.46	100.79	105.70
27	23SB	1217	G	C5-C6-O6	-5.46	125.33	128.60
27	23SA	221	C	C2-N1-C1'	5.46	124.80	118.80
1	16SA	1753	U	P-O3'-C3'	5.46	126.25	119.70
1	16SB	1781	C	C5-C6-N1	5.45	123.73	121.00
27	23SB	1239	G	N9-C4-C5	-5.45	103.22	105.40
27	23SA	1762	C	C6-N1-C2	-5.45	118.12	120.30
1	16SB	1467	G	N1-C6-O6	-5.45	116.63	119.90
27	23SB	2231	G	OP2-P-O3'	5.45	117.19	105.20
27	23SB	1766	G	C4-N9-C1'	5.45	133.58	126.50
27	23SA	648	A	C2-N3-C4	-5.45	107.88	110.60
1	16SA	2080	G	C6-C5-N7	5.44	133.66	130.40
27	23SA	1765	G	N1-C6-O6	5.44	123.17	119.90
27	23SA	2533	A	N9-C1'-C2'	-5.44	106.01	112.00
27	23SB	319	A	P-O3'-C3'	5.44	126.23	119.70
27	23SB	1637	C	C6-N1-C1'	-5.44	114.27	120.80
27	23SB	2570	U	C5-C4-O4	-5.44	122.64	125.90
1	16SA	871	G	C4-C5-N7	-5.44	108.62	110.80
1	16SA	1346	C	C6-N1-C2	-5.44	118.12	120.30
27	23SB	465	C	N3-C2-O2	-5.44	118.09	121.90
27	23SA	465	C	N1-C2-O2	5.43	122.16	118.90
1	16SA	747	G	C4-N9-C1'	5.43	133.56	126.50
27	23SA	1155	G	N3-C4-N9	-5.43	122.74	126.00
27	23SB	140	A	N7-C8-N9	5.43	116.52	113.80
27	23SA	1358	G	N9-C4-C5	-5.43	103.23	105.40
1	16SB	1562	G	N3-C4-N9	-5.43	122.74	126.00
27	23SB	1154	G	N3-C4-N9	5.43	129.26	126.00
1	16SA	1777	C	N3-C2-O2	-5.43	118.10	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	140	A	C5-N7-C8	-5.43	101.19	103.90
27	23SB	2750	A	C8-N9-C4	-5.43	103.63	105.80
24	ESIA	6	G	N9-C4-C5	5.43	107.57	105.40
1	16SA	1330	C	OP2-P-O3'	5.42	117.14	105.20
27	23SB	575	G	N1-C6-O6	5.42	123.16	119.90
27	23SA	1553	C	C2-N1-C1'	5.42	124.77	118.80
27	23SA	2869	C	N3-C4-C5	-5.42	119.73	121.90
27	23SB	2750	A	N7-C8-N9	5.42	116.51	113.80
27	23SB	195	G	OP2-P-O3'	5.42	117.12	105.20
27	23SB	1972	C	C6-N1-C2	-5.42	118.13	120.30
27	23SA	1809	U	C5-C4-O4	-5.42	122.65	125.90
27	23SA	1924	G	N1-C2-N2	5.42	121.08	116.20
27	23SA	2505	G	C8-N9-C1'	-5.42	119.96	127.00
27	23SA	1665	A	O4'-C1'-N9	5.41	112.53	108.20
27	23SB	1765	G	N3-C2-N2	-5.41	116.11	119.90
27	23SB	2742	U	C2-N1-C1'	5.41	124.20	117.70
1	16SB	1769	C	C5-C4-N4	5.41	123.99	120.20
1	16SB	1949	C	N3-C2-O2	-5.41	118.11	121.90
27	23SA	2154	C	N1-C2-O2	5.41	122.14	118.90
28	5SA	21	G	O4'-C1'-N9	-5.41	103.87	108.20
27	23SA	2911	G	C6-C5-N7	5.41	133.64	130.40
27	23SA	1238	G	O4'-C1'-N9	-5.41	103.88	108.20
25	MRNB	51	U	N3-C4-O4	-5.41	115.62	119.40
27	23SB	444	C	C6-N1-C1'	-5.41	114.31	120.80
1	16SA	1855	C	N1-C2-O2	5.40	122.14	118.90
9	S9B	19	LEU	CB-CG-CD2	-5.40	101.82	111.00
27	23SA	1058	A	O5'-P-OP2	-5.40	100.84	105.70
1	16SB	1003	G	C5-C6-O6	5.40	131.84	128.60
1	16SB	806	G	C6-C5-N7	5.40	133.64	130.40
1	16SB	2066	G	N9-C4-C5	-5.40	103.24	105.40
1	16SA	1598	A	O4'-C1'-N9	-5.39	103.88	108.20
1	16SA	1622	C	C6-N1-C2	-5.39	118.14	120.30
1	16SB	1562	G	N1-C2-N2	5.39	121.06	116.20
1	16SA	846	C	N3-C2-O2	-5.39	118.12	121.90
27	23SA	2191	G	N3-C4-N9	-5.39	122.77	126.00
1	16SB	1741	C	N1-C2-O2	-5.39	115.67	118.90
27	23SB	2162	C	C2-N1-C1'	5.39	124.73	118.80
1	16SA	796	G	C8-N9-C1'	5.39	134.01	127.00
27	23SB	2278	C	N1-C2-O2	-5.39	115.67	118.90
1	16SA	1300	G	C6-C5-N7	-5.39	127.17	130.40
27	23SA	432	C	P-O3'-C3'	5.39	126.16	119.70
27	23SA	2909	U	N3-C4-O4	5.38	123.17	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SB	1282	A	O4'-C1'-N9	5.38	112.51	108.20
27	23SA	1753	G	N9-C4-C5	-5.38	103.25	105.40
1	16SB	777	C	C5-C6-N1	5.38	123.69	121.00
27	23SA	2126	G	N3-C4-N9	-5.38	122.77	126.00
27	23SB	586	G	N1-C6-O6	5.38	123.13	119.90
27	23SB	2162	C	N1-C2-O2	5.38	122.13	118.90
27	23SB	2899	G	C6-N1-C2	-5.38	121.87	125.10
27	23SA	2752	G	N9-C4-C5	5.38	107.55	105.40
1	16SB	1434	C	N3-C2-O2	-5.38	118.14	121.90
27	23SB	2128	C	N3-C2-O2	-5.38	118.14	121.90
27	23SB	1190	U	N1-C2-O2	5.38	126.56	122.80
27	23SA	1820	A	N7-C8-N9	5.37	116.49	113.80
1	16SB	1554	C	C2-N1-C1'	-5.37	112.89	118.80
1	16SA	1252	C	N3-C4-N4	5.37	121.76	118.00
1	16SA	1352	U	O4'-C1'-N1	-5.37	103.90	108.20
27	23SA	1258	A	P-O3'-C3'	5.37	126.14	119.70
27	23SB	1784	G	C4-C5-N7	-5.37	108.65	110.80
27	23SA	766	G	O5'-P-OP2	-5.37	100.87	105.70
1	16SB	1499	G	N3-C2-N2	-5.36	116.15	119.90
1	16SB	2013	G	C6-C5-N7	-5.36	127.18	130.40
1	16SA	786	G	N3-C2-N2	-5.36	116.15	119.90
1	16SB	1781	C	C2-N1-C1'	5.36	124.70	118.80
27	23SB	680	A	OP2-P-O3'	5.36	116.99	105.20
27	23SA	750	G	O4'-C1'-N9	-5.36	103.91	108.20
1	16SB	1079	G	C4-C5-N7	5.36	112.94	110.80
1	16SA	2098	G	C5-C6-O6	5.36	131.81	128.60
27	23SB	785	C	C6-N1-C2	-5.36	118.16	120.30
27	23SA	2483	G	C6-C5-N7	-5.35	127.19	130.40
27	23SA	2177	G	C4-N9-C1'	5.35	133.46	126.50
27	23SB	2127	U	C4-C5-C6	5.35	122.91	119.70
27	23SA	4	C	C6-N1-C2	-5.35	118.16	120.30
27	23SA	992	A	P-O3'-C3'	5.35	126.12	119.70
27	23SB	11	G	O4'-C1'-N9	5.35	112.48	108.20
27	23SB	2005	G	C4-C5-N7	5.35	112.94	110.80
27	23SB	2540	G	N9-C4-C5	5.35	107.54	105.40
1	16SA	1867	U	C6-N1-C1'	-5.35	113.72	121.20
27	23SB	624	G	N1-C6-O6	-5.35	116.69	119.90
27	23SB	1220	G	P-O3'-C3'	5.35	126.11	119.70
27	23SA	50	G	N1-C6-O6	-5.34	116.69	119.90
27	23SB	1574	G	N1-C6-O6	-5.34	116.69	119.90
27	23SA	929	G	C6-C5-N7	5.34	133.60	130.40
27	23SB	1391	A	O4'-C1'-N9	5.34	112.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SA	140	A	C5-N7-C8	-5.34	101.23	103.90
27	23SA	1155	G	N1-C2-N2	5.34	121.00	116.20
1	16SA	777	C	C6-N1-C1'	-5.34	114.40	120.80
27	23SA	2421	U	C6-N1-C1'	-5.34	113.73	121.20
27	23SB	1103	G	C4-N9-C1'	5.34	133.44	126.50
27	23SA	2188	C	O5'-P-OP2	-5.33	100.90	105.70
27	23SB	2328	C	N1-C2-O2	5.33	122.10	118.90
27	23SA	909	U	N3-C2-O2	-5.33	118.47	122.20
27	23SA	2808	G	N9-C4-C5	5.33	107.53	105.40
9	S9B	19	LEU	CA-CB-CG	5.33	127.56	115.30
27	23SB	766	G	O5'-P-OP1	-5.33	100.90	105.70
27	23SA	1765	G	C6-C5-N7	-5.33	127.20	130.40
27	23SA	2778	G	C4-N9-C1'	5.33	133.42	126.50
1	16SB	1495	A	P-O3'-C3'	5.33	126.09	119.70
27	23SB	2890	G	N3-C4-N9	-5.33	122.81	126.00
23	PSIA	68	C	C2-N1-C1'	-5.32	112.95	118.80
1	16SB	1616	G	C5-N7-C8	-5.32	101.64	104.30
28	5SB	18	G	N3-C4-N9	-5.32	122.81	126.00
1	16SA	1752	G	N9-C4-C5	5.32	107.53	105.40
27	23SA	840	C	C6-N1-C2	5.32	122.43	120.30
27	23SB	2361	A	C8-N9-C4	5.32	107.93	105.80
1	16SA	815	C	N3-C4-N4	5.31	121.72	118.00
27	23SB	2538	G	C4-C5-N7	-5.31	108.67	110.80
27	23SA	2599	U	C2-N1-C1'	5.31	124.07	117.70
27	23SA	373	G	N9-C4-C5	5.31	107.52	105.40
1	16SB	1505	C	N3-C2-O2	-5.31	118.19	121.90
27	23SA	1702	A	P-O3'-C3'	5.30	126.06	119.70
27	23SA	2752	G	C4-C5-N7	-5.30	108.68	110.80
1	16SB	1735	C	N3-C2-O2	-5.30	118.19	121.90
27	23SB	358	G	C6-C5-N7	-5.30	127.22	130.40
27	23SA	2805	C	O4'-C1'-N1	5.30	112.44	108.20
27	23SA	92	C	N1-C2-O2	-5.30	115.72	118.90
27	23SA	100	G	C5-C6-N1	5.30	114.15	111.50
27	23SA	1703	G	C8-N9-C4	-5.30	104.28	106.40
27	23SB	1554	C	C2-N1-C1'	-5.30	112.97	118.80
27	23SA	276	C	C5-C6-N1	5.30	123.65	121.00
27	23SA	530	A	P-O3'-C3'	5.30	126.06	119.70
27	23SA	1478	G	C4-N9-C1'	5.30	133.39	126.50
27	23SB	2792	A	P-O3'-C3'	5.30	126.06	119.70
27	23SA	929	G	N1-C2-N2	5.29	120.97	116.20
27	23SA	1492	G	C4-C5-N7	-5.29	108.68	110.80
27	23SA	2333	G	N7-C8-N9	5.29	115.75	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	PSIB	74	C	N3-C2-O2	-5.29	118.19	121.90
1	16SA	1621	G	N3-C4-N9	-5.29	122.83	126.00
27	23SB	672	C	O4'-C1'-N1	5.29	112.43	108.20
27	23SB	2855	G	C6-C5-N7	5.29	133.57	130.40
27	23SB	1026	G	C6-C5-N7	5.29	133.57	130.40
1	16SA	1438	G	N3-C4-N9	-5.29	122.83	126.00
27	23SA	1363	C	C6-N1-C1'	-5.29	114.45	120.80
24	ESIB	29	G	C5-C6-O6	-5.29	125.43	128.60
27	23SB	1820	A	C6-C5-N7	-5.29	128.60	132.30
27	23SB	2874	G	N3-C4-N9	5.29	129.17	126.00
27	23SA	2126	G	N3-C4-C5	5.29	131.24	128.60
27	23SB	992	A	C6-C5-N7	-5.29	128.60	132.30
1	16SA	1771	G	C6-C5-N7	5.28	133.57	130.40
27	23SA	1252	A	C2-N3-C4	-5.28	107.96	110.60
27	23SA	2333	G	C8-N9-C4	-5.28	104.29	106.40
27	23SB	2344	G	N9-C4-C5	-5.28	103.29	105.40
27	23SA	1703	G	N3-C4-C5	-5.28	125.96	128.60
1	16SA	1827	C	P-O3'-C3'	5.28	126.04	119.70
47	L25A	5	LEU	CA-CB-CG	5.28	127.44	115.30
1	16SB	784	G	N3-C4-N9	-5.28	122.83	126.00
1	16SB	788	G	N1-C6-O6	-5.28	116.73	119.90
27	23SB	1551	C	C6-N1-C1'	-5.28	114.46	120.80
27	23SA	1155	G	C4-C5-N7	-5.28	108.69	110.80
28	5SA	21	G	C8-N9-C1'	-5.28	120.14	127.00
1	16SB	1518	G	C6-C5-N7	5.28	133.56	130.40
23	PSIB	1	G	C4-C5-N7	5.28	112.91	110.80
1	16SA	1477	G	C6-N1-C2	-5.27	121.94	125.10
22	ASIA	56	C	N3-C4-N4	-5.27	114.31	118.00
27	23SA	1784	G	C6-C5-N7	5.27	133.56	130.40
27	23SB	1973	G	C4-N9-C1'	5.27	133.35	126.50
27	23SA	2230	G	N3-C4-C5	-5.27	125.97	128.60
1	16SA	1929	U	C6-N1-C1'	-5.27	113.83	121.20
27	23SA	267	C	C5-C4-N4	5.27	123.89	120.20
27	23SA	1975	G	C4-C5-N7	5.27	112.91	110.80
22	ASIA	68	C	O4'-C1'-N1	5.27	112.41	108.20
27	23SB	1869	G	N3-C4-N9	5.27	129.16	126.00
28	5SB	6	C	N3-C4-N4	-5.27	114.31	118.00
27	23SA	823	A	C2-N3-C4	-5.26	107.97	110.60
27	23SB	73	A	C2-N3-C4	-5.26	107.97	110.60
27	23SB	1434	G	N3-C2-N2	-5.26	116.22	119.90
1	16SA	837	G	N9-C4-C5	-5.26	103.30	105.40
27	23SA	2197	U	O5'-P-OP1	-5.26	100.97	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	ASIA	56	C	C5-C4-N4	5.26	123.88	120.20
27	23SB	1975	G	N7-C8-N9	5.26	115.73	113.10
27	23SA	555	A	C2-N3-C4	-5.25	107.97	110.60
27	23SA	278	G	N1-C6-O6	-5.25	116.75	119.90
27	23SA	1765	G	C5-C6-O6	-5.25	125.45	128.60
27	23SB	624	G	N9-C4-C5	5.25	107.50	105.40
27	23SB	757	C	C6-N1-C1'	-5.25	114.50	120.80
27	23SB	946	C	O4'-C1'-N1	5.25	112.40	108.20
27	23SB	1229	C	N1-C2-O2	5.25	122.05	118.90
27	23SA	295	C	C6-N1-C2	-5.25	118.20	120.30
27	23SA	639	U	C2-N1-C1'	5.25	124.00	117.70
27	23SA	2180	G	C8-N9-C1'	5.25	133.83	127.00
27	23SA	2727	U	P-O3'-C3'	5.25	126.00	119.70
27	23SA	2165	C	C2-N1-C1'	-5.25	113.03	118.80
1	16SA	1161	A	O4'-C1'-N9	5.25	112.40	108.20
27	23SA	204	G	N1-C6-O6	-5.25	116.75	119.90
27	23SA	1258	A	C3'-C2'-C1'	5.25	105.70	101.50
27	23SB	2617	A	N1-C6-N6	5.25	121.75	118.60
1	16SB	1105	G	C4-C5-N7	5.24	112.90	110.80
1	16SB	1252	C	C6-N1-C1'	-5.24	114.51	120.80
27	23SB	1973	G	O4'-C1'-N9	-5.24	104.01	108.20
27	23SB	2057	G	C8-N9-C4	5.24	108.50	106.40
27	23SA	1252	A	N1-C2-N3	5.24	131.92	129.30
27	23SA	1363	C	C5-C4-N4	-5.23	116.54	120.20
1	16SA	693	C	C2-N1-C1'	-5.23	113.05	118.80
27	23SA	757	C	C2-N1-C1'	5.23	124.55	118.80
1	16SB	1643	C	N1-C2-N3	5.23	122.86	119.20
27	23SB	586	G	N3-C2-N2	-5.23	116.24	119.90
27	23SB	1973	G	C8-N9-C1'	-5.23	120.20	127.00
27	23SA	2231	G	C8-N9-C1'	-5.23	120.20	127.00
27	23SB	593	U	C5-C4-O4	-5.23	122.76	125.90
27	23SA	1703	G	C4-N9-C1'	5.23	133.30	126.50
27	23SA	2461	G	N3-C2-N2	-5.23	116.24	119.90
27	23SA	280	G	C5-C6-N1	-5.22	108.89	111.50
27	23SA	348	G	C4-C5-N7	5.22	112.89	110.80
27	23SA	1158	G	C8-N9-C1'	5.22	133.79	127.00
27	23SB	2235	G	N1-C6-O6	5.22	123.03	119.90
1	16SA	1415	G	N3-C2-N2	-5.22	116.24	119.90
1	16SA	1754	U	N3-C2-O2	-5.22	118.54	122.20
27	23SB	472	C	C6-N1-C2	5.22	122.39	120.30
1	16SB	1677	U	P-O3'-C3'	5.22	125.97	119.70
27	23SB	217	A	N7-C8-N9	5.22	116.41	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	2730	G	C4-C5-N7	5.22	112.89	110.80
1	16SB	1577	G	N3-C2-N2	-5.22	116.25	119.90
27	23SA	1445	U	N1-C2-O2	5.22	126.45	122.80
27	23SA	2845	U	C6-N1-C1'	-5.22	113.90	121.20
1	16SB	680	C	N1-C2-O2	-5.22	115.77	118.90
27	23SB	1231	G	N1-C2-N2	5.21	120.89	116.20
27	23SB	1266	C	C6-N1-C2	-5.21	118.21	120.30
27	23SB	1465	G	N3-C4-N9	-5.21	122.87	126.00
1	16SA	777	C	C2-N1-C1'	5.21	124.53	118.80
1	16SA	1621	G	C6-C5-N7	5.21	133.53	130.40
1	16SB	1002	G	C6-C5-N7	-5.21	127.27	130.40
27	23SA	725	A	C5-C6-N1	-5.21	115.09	117.70
1	16SB	1257	G	N9-C4-C5	5.21	107.48	105.40
27	23SB	877	U	N3-C2-O2	-5.21	118.55	122.20
27	23SA	685	G	N3-C4-N9	-5.21	122.88	126.00
27	23SB	832	A	N1-C6-N6	5.21	121.72	118.60
27	23SB	1097	C	C6-N1-C1'	-5.21	114.56	120.80
27	23SB	1190	U	C6-N1-C1'	-5.21	113.91	121.20
1	16SA	716	G	C8-N9-C1'	-5.20	120.24	127.00
1	16SA	1274	C	C6-N1-C2	-5.20	118.22	120.30
27	23SB	2061	C	C6-N1-C2	-5.20	118.22	120.30
27	23SA	2606	C	C6-N1-C2	-5.20	118.22	120.30
27	23SB	1465	G	N3-C2-N2	-5.20	116.26	119.90
27	23SB	2425	G	C6-N1-C2	-5.20	121.98	125.10
1	16SA	974	G	N3-C2-N2	-5.20	116.26	119.90
1	16SA	955	C	C5-C6-N1	5.20	123.60	121.00
27	23SB	672	C	OP1-P-O3'	5.20	116.63	105.20
1	16SB	830	C	C6-N1-C2	-5.20	118.22	120.30
1	16SB	1330	C	OP2-P-O3'	5.20	116.63	105.20
27	23SB	1509	G	N9-C4-C5	5.20	107.48	105.40
27	23SB	2524	G	C6-C5-N7	5.20	133.52	130.40
27	23SA	833	A	O4'-C1'-N9	5.19	112.35	108.20
27	23SA	1744	C	C6-N1-C1'	-5.19	114.57	120.80
27	23SB	1381	G	N7-C8-N9	5.19	115.70	113.10
1	16SA	1002	G	N9-C4-C5	-5.19	103.32	105.40
27	23SA	1584	U	N3-C2-O2	-5.19	118.57	122.20
23	PSIB	10	G	C5-C6-O6	-5.19	125.49	128.60
27	23SB	2207	G	C6-N1-C2	-5.19	121.99	125.10
27	23SB	2627	C	O5'-P-OP1	-5.19	101.03	105.70
27	23SB	1381	G	C4-C5-N7	5.19	112.88	110.80
26	TRNA	65	G	P-O3'-C3'	5.19	125.92	119.70
27	23SB	1162	G	C6-C5-N7	5.19	133.51	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	1820	A	N7-C8-N9	5.19	116.39	113.80
1	16SA	1899	G	C8-N9-C1'	-5.19	120.26	127.00
27	23SB	199	C	C6-N1-C2	-5.18	118.23	120.30
1	16SA	1311	G	C6-C5-N7	5.18	133.51	130.40
27	23SA	952	C	C6-N1-C1'	-5.18	114.58	120.80
27	23SA	1465	G	C8-N9-C1'	5.18	133.74	127.00
27	23SA	1562	C	C5-C6-N1	5.18	123.59	121.00
27	23SA	929	G	N3-C4-C5	5.18	131.19	128.60
27	23SA	1425	C	O5'-P-OP2	-5.18	101.04	105.70
1	16SB	1769	C	C2-N1-C1'	-5.18	113.10	118.80
27	23SB	1608	A	P-O3'-C3'	5.18	125.92	119.70
27	23SA	1583	G	N3-C4-C5	-5.18	126.01	128.60
1	16SB	814	C	N1-C2-O2	5.18	122.01	118.90
27	23SB	380	G	N1-C2-N2	5.18	120.86	116.20
27	23SB	1955	G	P-O3'-C3'	5.17	125.91	119.70
27	23SA	2173	G	C8-N9-C1'	-5.17	120.28	127.00
1	16SB	1643	C	N3-C2-O2	-5.17	118.28	121.90
27	23SB	61	C	N1-C2-O2	-5.17	115.80	118.90
27	23SA	941	C	N3-C2-O2	-5.17	118.28	121.90
1	16SB	1773	C	P-O3'-C3'	5.17	125.91	119.70
27	23SB	992	A	C4-N9-C1'	5.17	135.61	126.30
1	16SA	1616	G	C8-N9-C1'	-5.17	120.28	127.00
27	23SA	1445	U	C2-N1-C1'	5.17	123.90	117.70
1	16SB	788	G	C6-C5-N7	5.17	133.50	130.40
23	PSIA	72	C	O4'-C1'-N1	5.17	112.33	108.20
27	23SB	163	G	N3-C4-N9	5.17	129.10	126.00
1	16SA	1215	C	C6-N1-C2	5.16	122.36	120.30
1	16SA	2073	G	N3-C4-C5	-5.16	126.02	128.60
27	23SB	581	G	C6-C5-N7	-5.16	127.30	130.40
24	ESIA	20	U	N3-C2-O2	-5.16	118.59	122.20
27	23SA	348	G	N9-C4-C5	-5.16	103.34	105.40
27	23SA	667	C	C6-N1-C2	-5.16	118.23	120.30
27	23SB	629	G	C8-N9-C1'	-5.16	120.29	127.00
27	23SB	2355	G	C4-C5-N7	-5.16	108.74	110.80
27	23SA	42	G	C6-C5-N7	5.16	133.50	130.40
1	16SB	1105	G	C6-C5-N7	-5.16	127.31	130.40
27	23SB	2229	C	C5-C4-N4	5.16	123.81	120.20
27	23SB	2318	G	N1-C2-N2	5.16	120.84	116.20
27	23SA	1101	C	C5-C6-N1	5.16	123.58	121.00
27	23SA	2533	A	C5-N7-C8	-5.16	101.32	103.90
1	16SB	1769	C	N3-C4-N4	-5.16	114.39	118.00
27	23SB	462	C	C5-C4-N4	5.16	123.81	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	295	C	C5-C4-N4	-5.15	116.59	120.20
27	23SA	1070	G	C8-N9-C4	-5.15	104.34	106.40
27	23SA	877	U	C6-N1-C1'	-5.15	113.99	121.20
27	23SA	1462	G	C5-C6-O6	-5.15	125.51	128.60
19	S19A	39	THR	O-C-N	-5.15	114.47	122.70
27	23SA	928	G	N1-C6-O6	5.14	122.98	119.90
1	16SA	1206	G	C6-C5-N7	5.14	133.49	130.40
27	23SB	2742	U	C6-N1-C1'	-5.14	114.00	121.20
1	16SB	878	C	N1-C2-O2	-5.14	115.82	118.90
22	ASIA	15	G	O5'-P-OP2	-5.14	101.08	105.70
24	ESIA	6	G	C4-C5-N7	-5.14	108.75	110.80
1	16SB	1971	C	N3-C4-N4	-5.14	114.40	118.00
1	16SA	1256	G	N3-C2-N2	-5.14	116.31	119.90
1	16SA	1300	G	C4-C5-N7	5.14	112.86	110.80
27	23SA	782	G	N3-C4-N9	5.14	129.08	126.00
1	16SA	1114	G	C4-N9-C1'	5.13	133.18	126.50
1	16SB	1785	A	OP2-P-O3'	5.13	116.50	105.20
3	S3B	94	LEU	CA-CB-CG	5.13	127.11	115.30
27	23SB	1525	G	C4-N9-C1'	5.13	133.17	126.50
1	16SA	1291	G	O4'-C1'-N9	5.13	112.30	108.20
28	5SB	33	C	N3-C2-O2	-5.13	118.31	121.90
27	23SB	1515	G	C4-C5-N7	-5.12	108.75	110.80
23	PSIA	1	G	C8-N9-C1'	-5.12	120.34	127.00
1	16SA	1111	G	P-O3'-C3'	5.12	125.85	119.70
27	23SA	640	U	N3-C2-O2	-5.12	118.62	122.20
27	23SA	1927	C	C4-C5-C6	5.12	119.96	117.40
27	23SA	1346	C	OP2-P-O3'	-5.12	93.94	105.20
1	16SB	1889	C	C5-C4-N4	5.12	123.78	120.20
1	16SA	1783	G	C6-C5-N7	5.12	133.47	130.40
27	23SB	163	G	N1-C6-O6	5.12	122.97	119.90
27	23SA	1435	C	C2-N1-C1'	5.11	124.42	118.80
27	23SA	2581	A	P-O3'-C3'	5.11	125.84	119.70
27	23SA	2909	U	C5-C4-O4	-5.11	122.83	125.90
27	23SB	444	C	C2-N1-C1'	5.11	124.42	118.80
27	23SB	2492	C	N3-C4-C5	-5.11	119.85	121.90
28	5SB	6	C	C5-C4-N4	5.11	123.78	120.20
1	16SA	858	C	C5-C4-N4	-5.11	116.62	120.20
1	16SA	1907	A	O4'-C1'-N9	5.11	112.29	108.20
27	23SA	1584	U	N1-C2-O2	5.11	126.38	122.80
27	23SA	1700	G	N3-C4-N9	-5.11	122.93	126.00
27	23SA	2614	G	C4-C5-N7	-5.11	108.76	110.80
1	16SB	675	G	C4-C5-N7	-5.11	108.76	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	1955	G	O5'-P-OP2	5.11	116.83	110.70
27	23SB	2340	G	N3-C2-N2	-5.11	116.32	119.90
27	23SA	555	A	C4-N9-C1'	-5.11	117.11	126.30
1	16SB	1562	G	C4-C5-N7	-5.11	108.76	110.80
27	23SA	2599	U	N3-C2-O2	-5.11	118.63	122.20
28	5SA	88	G	C6-C5-N7	5.11	133.46	130.40
27	23SA	2150	G	C4-N9-C1'	-5.10	119.86	126.50
1	16SB	784	G	C4-C5-N7	-5.10	108.76	110.80
24	ESIA	20	U	N1-C2-O2	5.10	126.37	122.80
27	23SA	1517	C	N1-C2-O2	5.10	121.96	118.90
1	16SB	1653	C	N3-C2-O2	5.10	125.47	121.90
27	23SB	153	C	N3-C4-N4	5.10	121.57	118.00
27	23SB	1972	C	C6-N1-C1'	-5.10	114.68	120.80
1	16SA	1177	G	N9-C4-C5	-5.10	103.36	105.40
27	23SA	832	A	C6-C5-N7	-5.10	128.73	132.30
27	23SA	2149	G	C5-C6-O6	-5.10	125.54	128.60
1	16SB	2075	C	N1-C2-N3	5.10	122.77	119.20
1	16SA	1867	U	N3-C2-O2	-5.10	118.63	122.20
27	23SB	840	C	C6-N1-C2	5.10	122.34	120.30
27	23SA	1593	C	N1-C2-O2	5.09	121.96	118.90
27	23SB	903	G	N3-C4-N9	-5.09	122.94	126.00
27	23SB	576	G	C5-C6-O6	-5.09	125.55	128.60
26	TRNA	15	G	N1-C6-O6	-5.09	116.85	119.90
1	16SB	1647	G	N1-C6-O6	5.09	122.95	119.90
27	23SA	1124	C	C5-C4-N4	5.09	123.76	120.20
1	16SB	1827	C	OP2-P-O3'	5.09	116.39	105.20
1	16SA	805	C	N1-C2-O2	5.08	121.95	118.90
27	23SB	576	G	C6-N1-C2	-5.08	122.05	125.10
27	23SA	278	G	N9-C4-C5	5.08	107.43	105.40
1	16SB	830	C	C2-N1-C1'	5.08	124.39	118.80
27	23SB	2886	A	C2-N3-C4	-5.08	108.06	110.60
1	16SB	675	G	N9-C4-C5	5.08	107.43	105.40
1	16SB	1963	C	OP2-P-O3'	5.08	116.38	105.20
1	16SA	1053	A	P-O3'-C3'	5.08	125.80	119.70
1	16SA	1252	C	C5-C4-N4	-5.08	116.65	120.20
27	23SA	2190	G	C4-N9-C1'	5.08	133.10	126.50
54	L33A	10	LEU	CA-CB-CG	5.08	126.98	115.30
1	16SB	1002	G	N9-C4-C5	-5.08	103.37	105.40
1	16SB	778	G	N9-C4-C5	-5.08	103.37	105.40
27	23SB	2304	G	N1-C6-O6	-5.08	116.85	119.90
25	MRNA	56	U	C5-C6-N1	5.08	125.24	122.70
27	23SA	2124	U	N3-C2-O2	-5.08	118.65	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SA	2278	C	C6-N1-C2	-5.08	118.27	120.30
27	23SB	377	G	C8-N9-C4	-5.07	104.37	106.40
27	23SB	2318	G	N3-C4-N9	-5.07	122.96	126.00
27	23SB	725	A	N7-C8-N9	5.07	116.34	113.80
30	L3B	78	LEU	CA-CB-CG	5.07	126.97	115.30
27	23SA	1021	G	C6-C5-N7	5.07	133.44	130.40
1	16SB	969	C	P-O3'-C3'	5.07	125.78	119.70
27	23SB	1766	G	C8-N9-C1'	-5.07	120.41	127.00
1	16SA	730	C	N3-C4-N4	-5.07	114.45	118.00
1	16SA	1786	C	C6-N1-C2	-5.07	118.27	120.30
1	16SA	2125	A	C4-C5-N7	5.07	113.23	110.70
27	23SA	48	A	C8-N9-C4	5.07	107.83	105.80
27	23SA	1755	G	C6-C5-N7	5.07	133.44	130.40
27	23SA	2162	C	C5-C4-N4	5.07	123.75	120.20
25	MRNB	56	U	C5-C6-N1	5.07	125.23	122.70
27	23SB	2538	G	C6-C5-N7	5.07	133.44	130.40
27	23SA	226	C	N3-C4-C5	-5.07	119.87	121.90
1	16SB	677	G	N3-C4-N9	-5.07	122.96	126.00
27	23SB	2192	U	C2-N1-C1'	5.07	123.78	117.70
1	16SA	1621	G	N1-C2-N2	5.06	120.76	116.20
1	16SB	1837	C	C6-N1-C2	-5.06	118.28	120.30
33	L6A	9	ILE	CG1-CB-CG2	-5.06	100.27	111.40
27	23SB	581	G	C8-N9-C4	-5.06	104.38	106.40
27	23SB	769	C	C2-N1-C1'	5.06	124.37	118.80
27	23SA	1157	C	OP1-P-O3'	5.06	116.33	105.20
25	MRNB	53	U	P-O3'-C3'	5.06	125.77	119.70
27	23SA	681	A	O5'-P-OP2	-5.06	101.15	105.70
1	16SB	1718	U	C6-N1-C2	-5.06	117.97	121.00
27	23SB	2162	C	C6-N1-C1'	-5.06	114.73	120.80
27	23SA	2795	U	N3-C2-O2	-5.05	118.66	122.20
1	16SB	1643	C	C2-N3-C4	-5.05	117.37	119.90
27	23SB	2210	C	N1-C2-O2	-5.05	115.87	118.90
27	23SA	1231	G	N1-C6-O6	-5.05	116.87	119.90
24	ESIB	21	A	O4'-C1'-N9	-5.05	104.16	108.20
27	23SB	2540	G	C6-C5-N7	5.05	133.43	130.40
27	23SA	1462	G	C6-N1-C2	-5.05	122.07	125.10
1	16SB	814	C	N3-C2-O2	-5.05	118.36	121.90
27	23SA	1478	G	N3-C4-C5	-5.05	126.08	128.60
1	16SB	706	A	O4'-C1'-N9	5.05	112.24	108.20
1	16SB	1963	C	C6-N1-C2	-5.05	118.28	120.30
57	ASIB	41	C	C5-C6-N1	5.05	123.53	121.00
1	16SB	1621	G	N9-C4-C5	5.05	107.42	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SA	1241	C	C2-N1-C1'	5.05	124.35	118.80
28	5SA	62	C	C2-N1-C1'	5.05	124.35	118.80
1	16SB	815	C	C2-N1-C1'	5.05	124.35	118.80
27	23SB	557	G	C5-N7-C8	-5.05	101.78	104.30
1	16SA	1793	C	C5-C4-N4	-5.04	116.67	120.20
27	23SA	832	A	N1-C6-N6	5.04	121.63	118.60
27	23SA	1545	A	C8-N9-C4	-5.04	103.78	105.80
1	16SB	1079	G	C6-C5-N7	-5.04	127.37	130.40
1	16SB	1545	G	N3-C2-N2	-5.04	116.37	119.90
27	23SB	2704	U	P-O3'-C3'	5.04	125.75	119.70
27	23SA	965	A	C5-C6-N1	-5.04	115.18	117.70
1	16SB	784	G	N9-C4-C5	5.04	107.42	105.40
22	ASIA	76	A	O4'-C1'-N9	5.04	112.23	108.20
1	16SA	1899	G	C4-N9-C1'	5.04	133.05	126.50
1	16SB	2078	C	P-O3'-C3'	5.04	125.74	119.70
27	23SB	2538	G	N3-C2-N2	-5.04	116.38	119.90
1	16SA	1652	C	C6-N1-C2	-5.03	118.29	120.30
27	23SA	1685	G	C4-C5-N7	5.03	112.81	110.80
27	23SA	2133	C	C6-N1-C1'	5.03	126.84	120.80
27	23SA	2887	C	C2-N1-C1'	5.03	124.34	118.80
27	23SB	2319	G	N1-C6-O6	-5.03	116.88	119.90
27	23SA	1767	G	C6-C5-N7	5.03	133.42	130.40
24	ESIB	29	G	C6-N1-C2	-5.03	122.08	125.10
1	16SA	1471	C	C2-N3-C4	5.03	122.42	119.90
27	23SA	1079	G	N3-C2-N2	-5.03	116.38	119.90
25	MRNB	53	U	OP1-P-O3'	5.03	116.27	105.20
34	L9B	140	LEU	CA-CB-CG	5.03	126.87	115.30
1	16SA	675	G	N3-C2-N2	-5.03	116.38	119.90
27	23SA	1200	G	N3-C4-N9	-5.03	122.98	126.00
27	23SA	2490	C	C6-N1-C2	-5.03	118.29	120.30
27	23SA	1341	U	C5-C4-O4	-5.02	122.89	125.90
27	23SA	432	C	C2-N1-C1'	5.02	124.33	118.80
1	16SB	1971	C	C5-C4-N4	5.02	123.72	120.20
27	23SA	1582	C	C2-N1-C1'	5.02	124.32	118.80
1	16SA	654	A	O5'-P-OP1	5.02	116.72	110.70
1	16SA	730	C	N1-C2-O2	5.02	121.91	118.90
1	16SB	849	A	O4'-C1'-N9	5.02	112.22	108.20
27	23SB	378	G	C6-C5-N7	-5.02	127.39	130.40
27	23SB	1190	U	C2-N1-C1'	5.02	123.72	117.70
27	23SB	1280	G	C4-C5-N7	-5.02	108.79	110.80
27	23SA	1069	A	C5-N7-C8	-5.02	101.39	103.90
1	16SB	1562	G	C6-C5-N7	5.02	133.41	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SB	1973	A	OP2-P-O3'	5.02	116.23	105.20
1	16SA	747	G	C8-N9-C1'	-5.01	120.48	127.00
1	16SA	1119	C	C6-N1-C1'	-5.01	114.78	120.80
1	16SA	1817	G	C5-C6-O6	-5.01	125.59	128.60
1	16SA	2073	G	N1-C6-O6	5.01	122.91	119.90
27	23SB	1509	G	C6-N1-C2	-5.01	122.09	125.10
27	23SA	537	C	C6-N1-C2	-5.01	118.30	120.30
24	ESIB	29	G	N9-C4-C5	5.01	107.41	105.40
27	23SB	332	G	N3-C2-N2	5.01	123.41	119.90
27	23SB	433	U	N3-C2-O2	-5.01	118.69	122.20
1	16SA	1682	C	C5-C6-N1	5.01	123.50	121.00
27	23SA	1765	G	N3-C4-N9	5.01	129.00	126.00
1	16SB	1889	C	C6-N1-C2	-5.01	118.30	120.30
1	16SA	839	G	N9-C4-C5	5.01	107.40	105.40
1	16SA	803	C	C2-N1-C1'	5.01	124.31	118.80
1	16SB	1319	G	C8-N9-C1'	-5.01	120.49	127.00
27	23SB	1975	G	C8-N9-C4	-5.01	104.40	106.40
27	23SB	2890	G	C5-C6-N1	-5.01	109.00	111.50
27	23SA	46	C	N1-C2-O2	-5.00	115.90	118.90
27	23SA	1598	C	C6-N1-C2	-5.00	118.30	120.30
27	23SB	1486	C	C2-N1-C1'	5.00	124.31	118.80
27	23SA	1502	C	C2-N1-C1'	5.00	124.30	118.80
27	23SA	2551	G	C6-C5-N7	5.00	133.40	130.40
1	16SB	907	G	C8-N9-C1'	-5.00	120.50	127.00
27	23SB	2333	G	C4-N9-C1'	5.00	133.00	126.50
1	16SA	1285	C	N1-C2-O2	-5.00	115.90	118.90
27	23SB	2231	G	P-O3'-C3'	5.00	125.70	119.70
28	5SB	53	G	N1-C6-O6	-5.00	116.90	119.90

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
34	L9A	110	ASP	Peptide
34	L9A	131	LYS	Peptide

5.2 Too-close contacts (i)

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

the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	16SA	32509	0	0	0	10
1	16SB	32429	0	0	0	0
2	S2A	1924	0	1975	82	0
2	S2B	1924	0	1975	101	0
3	S3A	1605	0	1668	47	0
3	S3B	1612	0	1677	62	0
4	S4A	1702	0	1767	69	0
4	S4B	1702	0	1764	43	0
5	S5A	1155	0	1213	27	0
5	S5B	1155	0	1212	31	0
6	S6A	842	0	857	26	0
6	S6B	842	0	857	22	0
7	S7A	1256	0	1296	28	0
7	S7B	1256	0	1296	26	0
8	S8A	1115	0	1177	42	0
8	S8B	1115	0	1177	42	0
9	S9A	1009	0	1037	40	0
9	S9B	1009	0	1037	49	0
10	S10A	801	0	0	0	0
10	S10B	801	0	0	0	0
11	S11A	864	0	0	0	0
11	S11B	873	0	0	0	0
12	S12A	977	0	0	0	0
12	S12B	977	0	0	0	0
13	S13A	946	0	0	0	0
13	S13B	964	0	0	0	0
14	S14A	491	0	0	0	0
14	S14B	486	0	0	0	0
15	S15A	733	0	0	0	0
15	S15B	733	0	0	0	0
16	S16A	700	0	0	0	0
16	S16B	705	0	0	0	0
17	S17A	834	0	0	0	0
17	S17B	834	0	0	0	0
18	S18A	584	0	0	0	0
18	S18B	573	0	0	0	0
19	S19A	674	0	0	0	0
19	S19B	684	0	0	0	0
20	S20A	762	0	0	0	0
20	S20B	762	0	0	0	0
21	THXA	208	0	0	0	0
21	THXB	217	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	ASIA	1628	0	0	0	0
23	PSIA	1635	0	0	0	0
23	PSIB	1635	0	0	0	0
24	ESIA	1626	0	0	0	0
24	ESIB	1626	0	0	0	0
25	MRNA	621	0	0	0	0
25	MRNB	621	0	0	0	0
26	TRNA	1565	0	0	0	4
27	23SA	62225	0	0	0	1
27	23SB	61886	0	0	0	2
28	5SA	2617	0	1327	33	0
28	5SB	2598	0	1316	45	0
29	L2A	2115	0	2195	48	0
29	L2B	2115	0	2195	50	0
30	L3A	1563	0	1629	29	0
30	L3B	1563	0	1629	51	0
31	L4A	1585	0	1632	57	0
31	L4B	1585	0	1632	55	0
32	L5A	1473	0	1535	46	0
32	L5B	1473	0	1535	56	0
33	L6A	1316	0	1395	71	0
33	L6B	1327	0	1405	67	10
34	L9A	1131	0	1218	100	0
34	L9B	1136	0	1223	50	0
35	L13A	1104	0	0	0	0
35	L13B	1104	0	0	0	0
36	L14A	932	0	0	0	0
36	L14B	932	0	0	0	0
37	L15A	1144	0	0	0	0
37	L15B	1144	0	0	0	2
38	L16A	1121	0	0	0	0
38	L16B	1121	0	0	0	0
39	L17A	967	0	0	0	0
39	L17B	967	0	0	0	0
40	L18A	889	0	0	0	0
40	L18B	881	0	0	0	0
41	L19A	1141	0	0	0	0
41	L19B	1141	0	0	0	0
42	L20A	963	0	0	0	2
42	L20B	963	0	0	0	0
43	L21A	778	0	0	0	1
43	L21B	778	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	L22A	899	0	0	0	0
44	L22B	899	0	0	0	0
45	L23A	738	0	0	0	0
45	L23B	742	0	0	0	0
46	L24A	824	0	0	0	0
46	L24B	775	0	0	0	0
47	L25A	1428	0	0	0	0
47	L25B	1404	0	0	0	0
48	L27A	661	0	0	0	0
48	L27B	661	0	0	0	0
49	L28A	762	0	0	0	0
49	L28B	762	0	0	0	0
50	L29A	583	0	0	0	0
50	L29B	590	0	0	0	0
51	L30A	468	0	0	0	0
51	L30B	468	0	0	0	0
52	L31A	580	0	0	0	0
52	L31B	580	0	0	0	0
53	L32A	434	0	0	0	0
53	L32B	434	0	0	0	0
54	L33A	389	0	0	0	0
54	L33B	389	0	0	0	0
55	L34A	418	0	0	0	0
55	L34B	429	0	0	0	0
56	L35A	516	0	0	0	0
56	L35B	516	0	0	0	0
57	ASIB	1627	0	0	0	0
58	16SA	92	0	0	0	0
58	16SB	86	0	0	0	0
58	23SA	332	0	0	0	0
58	23SB	241	0	0	0	0
58	5SA	6	0	0	0	0
58	5SB	4	0	0	0	0
58	L15A	2	0	0	0	0
58	L15B	1	0	0	0	0
58	L23A	1	0	0	0	0
58	L27A	2	0	0	0	0
58	L30A	1	0	0	0	0
58	L32A	1	0	0	0	0
58	L33A	1	0	0	0	0
58	L34A	1	0	0	0	0
58	L35A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	L35B	2	0	0	0	0
58	L3A	2	0	0	0	0
58	L3B	2	0	0	0	0
58	L4A	2	0	0	0	0
58	L4B	1	0	0	0	0
58	L5A	1	0	0	0	0
58	L5B	1	0	0	0	0
58	PSIA	2	0	0	0	0
58	PSIB	3	0	0	0	0
58	S4A	1	0	0	0	0
58	S5B	1	0	0	0	0
59	16SA	574	0	0	0	0
59	16SB	546	0	0	0	0
59	23SA	1435	0	0	0	2
59	23SB	1393	0	0	0	0
59	5SA	77	0	0	0	0
59	5SB	77	0	0	0	0
59	ASIA	21	0	0	0	0
59	ASIB	21	0	0	0	0
59	ESIA	7	0	0	0	0
59	ESIB	7	0	0	0	0
59	L15A	7	0	0	0	0
59	L17A	7	0	0	0	0
59	L17B	7	0	0	0	0
59	L19A	7	0	0	0	0
59	L20A	7	0	0	0	0
59	L20B	7	0	0	0	0
59	L27A	14	0	0	0	0
59	L28A	7	0	0	0	0
59	L35A	7	0	0	0	0
59	L35B	7	0	0	0	0
59	L4A	7	0	0	0	0
59	L4B	7	0	0	0	0
59	MRNA	7	0	0	0	0
59	MRNB	7	0	0	0	0
59	PSIA	7	0	0	0	0
59	PSIB	14	0	0	0	0
59	S10A	7	0	0	0	0
59	S14B	7	0	0	0	0
59	S19A	7	0	0	0	0
59	S4A	7	0	0	5	0
59	S4B	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	TRNA	14	0	0	0	0
60	16SA	46	0	0	0	0
60	16SB	35	0	0	0	0
60	23SA	102	0	0	0	0
60	23SB	81	0	0	0	0
60	5SA	2	0	0	0	0
60	5SB	1	0	0	0	0
60	L15B	1	0	0	0	0
60	L16B	1	0	0	0	0
60	L2A	1	0	0	0	0
60	L2B	1	0	0	0	0
60	L3A	1	0	0	0	0
60	L3B	1	0	0	0	0
60	L4A	1	0	0	0	0
60	L4B	1	0	0	0	0
60	L5A	1	0	0	0	0
60	L5B	1	0	0	0	0
60	PSIA	2	0	0	0	0
60	S13A	1	0	0	0	0
60	S13B	1	0	0	0	0
60	S14B	1	0	0	0	0
60	S20A	1	0	0	0	0
60	S20B	1	0	0	0	0
60	S4B	1	0	0	0	0
60	S6A	1	0	0	0	0
60	S6B	1	0	0	0	0
61	23SA	87	0	0	0	0
61	23SB	87	0	0	0	0
62	16SA	172	0	0	0	0
62	16SB	157	0	0	0	0
62	23SA	788	0	0	0	0
62	23SB	519	0	0	0	0
62	5SA	14	0	0	3	0
62	5SB	5	0	0	2	0
62	ESIA	1	0	0	0	0
62	L15A	9	0	0	0	0
62	L15B	7	0	0	0	0
62	L16A	1	0	0	0	0
62	L17A	2	0	0	0	0
62	L18A	2	0	0	0	0
62	L19A	1	0	0	0	0
62	L19B	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	L23A	1	0	0	0	0
62	L27A	3	0	0	0	0
62	L27B	2	0	0	0	0
62	L28B	1	0	0	0	0
62	L2A	10	0	0	3	0
62	L2B	12	0	0	1	0
62	L30A	1	0	0	0	0
62	L30B	1	0	0	0	0
62	L34A	1	0	0	0	0
62	L35A	1	0	0	0	0
62	L35B	6	0	0	0	0
62	L3A	7	0	0	0	0
62	L3B	6	0	0	1	0
62	L4A	6	0	0	0	0
62	L4B	1	0	0	0	0
62	PSIA	7	0	0	0	0
62	S12A	1	0	0	0	0
62	S12B	2	0	0	0	0
62	S13A	1	0	0	0	0
62	S14A	1	0	0	0	0
62	S14B	2	0	0	0	0
62	S16A	1	0	0	0	0
62	S4A	3	0	0	0	0
62	S4B	2	0	0	0	0
62	S5A	1	0	0	0	0
62	S5B	1	0	0	0	0
62	S9B	1	0	0	0	0
62	THXA	3	0	0	0	0
All	All	306403	0	43851	1471	17

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 17.

All (1471) 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)
34:L9A:114:LEU:CD1	34:L9A:130:TYR:HD1	1.38	1.37
9:S9B:58:HIS:O	9:S9B:59:PHE:CD1	1.79	1.36
34:L9A:69:LYS:HG3	34:L9A:136:VAL:CG2	1.61	1.28
34:L9A:114:LEU:CD1	34:L9A:130:TYR:CD1	2.19	1.24
34:L9A:73:GLU:HG3	34:L9A:136:VAL:CG2	1.68	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L9A:114:LEU:HD13	34:L9A:130:TYR:CD1	1.78	1.14
34:L9A:114:LEU:HD11	34:L9A:130:TYR:HD1	1.13	1.13
2:S2A:168:THR:HG22	2:S2A:192:SER:HB3	1.28	1.13
34:L9A:69:LYS:HG3	34:L9A:136:VAL:CB	1.78	1.12
33:L6B:10:PRO:HG2	33:L6B:50:VAL:O	1.50	1.09
34:L9A:73:GLU:HG3	34:L9A:136:VAL:HG22	1.08	1.08
34:L9A:136:VAL:HG22	34:L9A:137:PRO:HD2	1.35	1.06
34:L9A:73:GLU:CG	34:L9A:136:VAL:HG22	1.86	1.05
33:L6B:10:PRO:HG2	33:L6B:50:VAL:HG13	1.36	1.04
33:L6A:87:LEU:O	33:L6A:87:LEU:HD12	1.57	1.03
34:L9A:73:GLU:CG	34:L9A:137:PRO:HD2	1.88	1.02
34:L9A:69:LYS:HG3	34:L9A:136:VAL:HB	1.37	1.01
34:L9A:69:LYS:CG	34:L9A:136:VAL:CG2	2.38	1.01
31:L4A:65:TRP:CZ3	31:L4A:72:ARG:HB3	2.00	0.96
34:L9A:133:HIS:HB2	34:L9A:134:PRO:HD2	1.49	0.95
29:L2A:60:ARG:HD3	29:L2A:86:PRO:HB2	1.46	0.94
33:L6A:87:LEU:HD11	33:L6A:131:VAL:CG1	1.98	0.93
2:S2B:69:LEU:HD13	2:S2B:159:PRO:HG3	1.50	0.93
33:L6B:10:PRO:CG	33:L6B:50:VAL:HG13	1.96	0.93
9:S9B:58:HIS:O	9:S9B:59:PHE:HD1	1.39	0.93
9:S9B:24:GLY:N	9:S9B:60:ASP:OD1	2.02	0.93
29:L2B:182:LEU:H	29:L2B:272:ALA:HB3	1.35	0.92
3:S3B:50:ALA:HB2	3:S3B:76:VAL:HG11	1.52	0.92
34:L9A:73:GLU:CG	34:L9A:136:VAL:CG2	2.47	0.91
34:L9A:69:LYS:HG3	34:L9A:136:VAL:HG23	1.51	0.90
34:L9A:136:VAL:HG22	34:L9A:137:PRO:CD	2.01	0.90
32:L5B:64:THR:HG23	32:L5B:66:GLN:H	1.35	0.90
4:S4A:96:LEU:HG	4:S4A:139:ARG:HH22	1.37	0.88
29:L2A:242:ARG:O	62:L2A:401:HOH:O	1.92	0.88
32:L5B:67:LYS:CD	32:L5B:67:LYS:H	1.87	0.88
31:L4A:65:TRP:CH2	31:L4A:72:ARG:HB3	2.09	0.87
31:L4B:167:ALA:HB1	31:L4B:173:VAL:HG11	1.55	0.87
34:L9A:114:LEU:HD13	34:L9A:130:TYR:CE1	2.10	0.86
28:5SB:54:A:O2'	28:5SB:55:A:N7	2.08	0.86
9:S9B:4:TYR:HE2	9:S9B:88:TYR:HB2	1.38	0.86
33:L6A:87:LEU:CD1	33:L6A:131:VAL:HG12	2.06	0.85
2:S2B:32:ILE:HD11	2:S2B:40:HIS:CD2	2.11	0.85
33:L6B:10:PRO:CG	33:L6B:50:VAL:O	2.24	0.84
2:S2B:55:PHE:CE1	2:S2B:221:LEU:HD22	2.12	0.84
33:L6A:86:GLU:O	33:L6A:87:LEU:HG	1.78	0.84
33:L6B:10:PRO:CB	33:L6B:50:VAL:HG13	2.08	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L9A:109:ILE:HB	34:L9A:130:TYR:OH	1.78	0.84
28:5SB:17:A:H5'	28:5SB:18:G:H8	1.43	0.83
2:S2B:132:LYS:HA	2:S2B:135:GLN:HB2	1.60	0.83
30:L3B:9:VAL:HG11	30:L3B:27:LEU:HD23	1.59	0.83
28:5SA:75:A:OP2	62:5SA:302:HOH:O	1.97	0.83
7:S7A:106:GLN:O	7:S7A:110:GLN:NE2	2.12	0.82
32:L5B:67:LYS:H	32:L5B:67:LYS:HD3	1.42	0.82
31:L4A:63:LYS:NZ	31:L4A:75:HIS:O	2.12	0.82
2:S2B:20:GLU:HB3	2:S2B:23:ARG:HB2	1.62	0.82
3:S3B:42:LEU:HA	3:S3B:45:LYS:HE3	1.59	0.82
9:S9B:4:TYR:CE2	9:S9B:88:TYR:HB2	2.13	0.82
28:5SA:82:U:H2'	28:5SA:83:G:H21	1.43	0.82
31:L4B:127:GLU:O	31:L4B:129:PHE:N	2.11	0.82
2:S2B:127:ILE:O	2:S2B:135:GLN:NE2	2.13	0.81
28:5SB:17:A:H5'	28:5SB:18:G:C8	2.16	0.81
31:L4A:103:LYS:HA	31:L4A:106:ARG:HD3	1.62	0.80
34:L9A:73:GLU:HG3	34:L9A:137:PRO:HD2	1.64	0.80
33:L6A:41:MET:HG3	33:L6A:54:ARG:HA	1.62	0.80
34:L9A:69:LYS:CG	34:L9A:136:VAL:HG23	2.07	0.80
30:L3B:47:VAL:HG11	30:L3B:86:PRO:HD2	1.63	0.80
29:L2A:142:VAL:HG23	29:L2A:193:VAL:HA	1.63	0.79
2:S2A:82:ARG:NH2	2:S2A:92:TYR:OH	2.17	0.78
9:S9B:28:VAL:HG22	9:S9B:63:ILE:HB	1.65	0.78
34:L9A:114:LEU:HD12	34:L9A:130:TYR:HA	1.65	0.78
33:L6A:87:LEU:HD11	33:L6A:131:VAL:HG12	1.61	0.78
7:S7A:91:VAL:HG23	7:S7A:96:GLN:HG2	1.66	0.78
31:L4A:65:TRP:HB3	31:L4A:66:PRO:HD2	1.67	0.77
34:L9A:73:GLU:HG2	34:L9A:137:PRO:HD2	1.67	0.77
34:L9A:144:VAL:HG22	34:L9A:145:VAL:HG23	1.66	0.77
28:5SA:54:A:O2'	28:5SA:55:A:N7	2.18	0.77
5:S5A:152:ARG:NH2	8:S8A:107:LEU:O	2.18	0.77
34:L9A:116:LEU:O	34:L9A:116:LEU:HD12	1.84	0.77
31:L4A:127:GLU:O	31:L4A:129:PHE:N	2.17	0.76
8:S8A:42:GLU:HG3	8:S8A:109:ILE:HD12	1.65	0.76
4:S4B:191:ARG:NH1	4:S4B:191:ARG:O	2.15	0.76
8:S8B:17:THR:O	8:S8B:78:GLN:NE2	2.18	0.76
2:S2A:178:ARG:HH21	8:S8A:74:PRO:HG3	1.49	0.76
33:L6A:171:LEU:N	33:L6A:171:LEU:HD12	2.01	0.76
4:S4A:90:GLY:HA3	4:S4A:204:ILE:HD11	1.68	0.76
9:S9A:83:ARG:HA	9:S9A:86:VAL:HG12	1.67	0.76
34:L9A:69:LYS:HG3	34:L9A:136:VAL:HG21	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S3A:188:LEU:HD11	3:S3A:195:VAL:HG13	1.68	0.75
4:S4A:33:MET:HE2	4:S4A:37:PRO:HA	1.69	0.75
6:S6B:28:ARG:NH2	6:S6B:31:GLU:OE1	2.20	0.74
28:5SB:91:G:N2	28:5SB:92:A:N1	2.29	0.74
2:S2B:16:HIS:HB3	2:S2B:210:SER:HB2	1.68	0.74
33:L6A:157:TYR:C	33:L6A:171:LEU:HD23	2.08	0.74
33:L6B:86:GLU:HA	33:L6B:132:ARG:HB2	1.69	0.74
34:L9A:109:ILE:CB	34:L9A:130:TYR:OH	2.37	0.73
7:S7B:16:LEU:HD11	9:S9B:42:ARG:HA	1.71	0.73
33:L6B:41:MET:HG2	33:L6B:55:PRO:HD3	1.69	0.73
30:L3A:36:ARG:NH1	30:L3A:85:ASN:OD1	2.21	0.73
33:L6B:27:LYS:HA	33:L6B:32:GLU:HB3	1.69	0.73
29:L2B:228:PRO:O	62:L2B:402:HOH:O	2.07	0.73
5:S5B:78:HIS:HB2	8:S8B:104:ARG:HD2	1.70	0.72
29:L2A:206:LEU:HD22	29:L2A:211:ARG:HG2	1.70	0.72
33:L6A:119:GLU:O	33:L6A:140:LYS:NZ	2.20	0.72
28:5SB:17:A:H1'	28:5SB:112:G:C5	2.24	0.72
2:S2B:137:ARG:NH1	2:S2B:137:ARG:O	2.22	0.72
5:S5B:102:ALA:HB1	5:S5B:106:PRO:HG2	1.70	0.72
8:S8A:129:VAL:HG23	8:S8A:130:GLY:H	1.53	0.72
29:L2A:182:LEU:H	29:L2A:272:ALA:HB3	1.54	0.71
34:L9A:69:LYS:CG	34:L9A:136:VAL:HG21	2.18	0.71
29:L2A:232:PRO:O	62:L2A:402:HOH:O	2.07	0.71
9:S9B:55:ALA:HB1	9:S9B:59:PHE:CD2	2.25	0.71
33:L6A:124:GLU:HG2	33:L6A:126:PRO:HD3	1.72	0.71
8:S8B:39:LEU:HD12	8:S8B:44:PHE:CB	2.19	0.71
33:L6B:130:ARG:O	33:L6B:131:VAL:HG23	1.89	0.71
31:L4A:65:TRP:HB3	31:L4A:66:PRO:CD	2.20	0.71
33:L6B:33:LEU:HD21	33:L6B:136:ILE:HG22	1.73	0.71
33:L6A:3:ARG:HG3	33:L6A:6:ARG:H	1.56	0.71
31:L4B:197:ASP:HA	31:L4B:200:GLU:HB2	1.71	0.71
29:L2A:182:LEU:HB2	29:L2A:271:ILE:HG13	1.72	0.71
34:L9A:114:LEU:HD11	34:L9A:130:TYR:CD1	2.06	0.71
30:L3B:11:MET:HG2	30:L3B:24:THR:HG22	1.71	0.71
33:L6B:23:ARG:HG3	33:L6B:25:LYS:HE3	1.71	0.71
28:5SA:27:A:OP1	62:5SA:303:HOH:O	2.09	0.71
9:S9A:121:ARG:NH1	9:S9A:122:ALA:O	2.24	0.70
9:S9B:28:VAL:HA	9:S9B:63:ILE:O	1.91	0.70
29:L2A:95:LEU:HD11	29:L2A:97:TYR:CE2	2.26	0.70
29:L2A:96:HIS:HD2	29:L2A:102:LYS:HG2	1.56	0.70
33:L6A:87:LEU:HD11	33:L6A:131:VAL:HG11	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S9B:19:LEU:HD21	9:S9B:84:ALA:HB1	1.72	0.70
2:S2B:223:ILE:HA	2:S2B:226:ARG:HG2	1.72	0.69
28:5SB:82:U:H2'	28:5SB:83:G:H21	1.56	0.69
2:S2B:215:LEU:HA	2:S2B:218:ALA:HB3	1.74	0.69
7:S7B:23:VAL:HG13	7:S7B:43:PHE:HE2	1.56	0.69
7:S7A:38:LEU:O	7:S7A:42:ILE:HG13	1.93	0.69
9:S9B:4:TYR:CE2	9:S9B:88:TYR:CG	2.80	0.69
30:L3A:111:ARG:HG3	30:L3A:160:TYR:CD2	2.27	0.69
34:L9A:73:GLU:OE2	34:L9A:137:PRO:CD	2.41	0.69
5:S5B:100:VAL:HG23	5:S5B:107:ARG:HH21	1.58	0.69
28:5SB:75:A:OP2	62:5SB:301:HOH:O	2.10	0.69
34:L9A:69:LYS:CG	34:L9A:136:VAL:HB	2.21	0.69
34:L9B:68:LEU:HA	34:L9B:71:ILE:HG22	1.73	0.69
5:S5A:68:GLU:HG2	5:S5A:70:PRO:HD3	1.74	0.69
33:L6B:10:PRO:HB2	33:L6B:50:VAL:CG1	2.22	0.68
29:L2A:136:ILE:O	29:L2A:168:ARG:NH2	2.25	0.68
29:L2B:142:VAL:HG23	29:L2B:193:VAL:HA	1.75	0.68
33:L6B:73:ALA:O	33:L6B:77:LYS:N	2.23	0.68
4:S4A:13:ARG:NH1	4:S4A:38:TYR:O	2.26	0.68
9:S9A:16:ARG:O	9:S9A:63:ILE:HA	1.94	0.68
9:S9B:46:ALA:HA	9:S9B:78:LYS:HE3	1.76	0.68
33:L6A:18:GLU:HB2	33:L6A:25:LYS:HB2	1.76	0.68
28:5SA:11:G:O2'	62:5SA:304:HOH:O	2.12	0.68
31:L4A:185:ASP:OD1	31:L4A:188:ARG:NH1	2.27	0.68
2:S2A:5:ILE:HD12	2:S2A:221:LEU:HD23	1.75	0.67
34:L9A:73:GLU:HG3	34:L9A:136:VAL:HG21	1.70	0.67
7:S7B:68:ASN:ND2	7:S7B:128:ALA:O	2.28	0.67
8:S8B:29:SER:HB3	8:S8B:32:LYS:HG3	1.76	0.67
30:L3A:117:MET:O	30:L3A:118:LYS:HB3	1.93	0.67
2:S2A:12:GLU:O	2:S2A:16:HIS:HB2	1.94	0.67
2:S2A:77:ALA:HB2	2:S2A:211:ILE:HD13	1.76	0.67
31:L4A:133:ASN:HA	31:L4A:162:LEU:HD22	1.76	0.67
3:S3B:135:LYS:O	3:S3B:139:GLN:NE2	2.27	0.67
9:S9B:10:ARG:HD3	9:S9B:75:ASP:HB3	1.75	0.67
30:L3B:28:ALA:HB3	30:L3B:93:VAL:HG12	1.76	0.67
30:L3B:34:VAL:HG21	30:L3B:78:LEU:HD11	1.76	0.67
3:S3B:91:LEU:O	3:S3B:95:THR:OG1	2.08	0.67
33:L6A:157:TYR:O	33:L6A:171:LEU:HD23	1.94	0.67
7:S7B:8:GLU:OE1	7:S7B:8:GLU:N	2.21	0.67
2:S2B:32:ILE:HD11	2:S2B:40:HIS:HD2	1.60	0.67
3:S3B:120:VAL:HG13	3:S3B:124:ILE:HD13	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:L2B:8:PRO:HB3	29:L2B:14:ARG:HB3	1.77	0.67
9:S9A:61:ALA:HB1	9:S9A:63:ILE:HD13	1.77	0.67
33:L6A:87:LEU:HB2	33:L6A:163:TYR:O	1.94	0.67
9:S9B:19:LEU:HD21	9:S9B:84:ALA:CB	2.23	0.67
30:L3B:119:ARG:HD3	30:L3B:160:TYR:HB2	1.77	0.67
3:S3A:84:ILE:HG13	3:S3A:101:LEU:HD22	1.77	0.66
33:L6A:113:VAL:HG11	33:L6A:151:ILE:HD13	1.76	0.66
3:S3B:119:ARG:HH22	3:S3B:140:ARG:HG3	1.60	0.66
9:S9B:58:HIS:C	9:S9B:59:PHE:CD1	2.67	0.66
3:S3A:8:ILE:HG23	3:S3A:16:ARG:HG2	1.78	0.66
33:L6B:157:TYR:HA	33:L6B:171:LEU:HG	1.78	0.66
6:S6A:62:TRP:CH2	6:S6A:64:GLN:HB2	2.31	0.66
2:S2B:223:ILE:O	2:S2B:227:GLY:N	2.28	0.66
7:S7B:113:GLU:HG3	7:S7B:119:ARG:HA	1.77	0.66
32:L5A:49:ASP:OD1	32:L5A:51:ARG:HG3	1.96	0.66
7:S7A:113:GLU:HB2	7:S7A:119:ARG:HG2	1.78	0.66
3:S3B:9:GLY:HA2	3:S3B:12:LEU:HG	1.78	0.66
3:S3B:155:GLY:HA2	3:S3B:163:ALA:HB1	1.77	0.66
4:S4B:13:ARG:NH1	4:S4B:38:TYR:O	2.29	0.66
5:S5B:34:VAL:HG11	5:S5B:63:ARG:HG2	1.78	0.66
34:L9B:113:ARG:HD2	34:L9B:131:LYS:HD2	1.78	0.66
32:L5A:97:ASP:H	32:L5A:100:TRP:HD1	1.44	0.65
9:S9B:44:VAL:O	9:S9B:51:ARG:NH2	2.25	0.65
34:L9A:73:GLU:OE2	34:L9A:137:PRO:HD3	1.97	0.65
34:L9A:29:TYR:O	34:L9A:33:ARG:HG2	1.96	0.65
2:S2A:20:GLU:HB3	2:S2A:23:ARG:HG3	1.79	0.65
2:S2A:92:TYR:CZ	2:S2A:151:GLY:HA3	2.32	0.65
29:L2A:226:MET:O	62:L2A:403:HOH:O	2.12	0.65
32:L5A:27:ASN:HB3	32:L5A:30:GLU:HG3	1.79	0.65
3:S3A:150:LYS:HE2	3:S3A:152:ILE:HD11	1.77	0.65
5:S5B:152:ARG:O	8:S8B:64:LYS:NZ	2.23	0.65
2:S2A:53:ARG:NH2	2:S2A:198:ASP:O	2.29	0.65
28:5SA:17:A:H5'	28:5SA:18:G:C8	2.32	0.65
6:S6B:15:ASP:HB2	6:S6B:18:GLN:H	1.61	0.65
8:S8B:69:ARG:NH1	8:S8B:75:ARG:O	2.29	0.65
29:L2B:206:LEU:O	29:L2B:211:ARG:HD3	1.97	0.65
34:L9B:54:GLN:HA	34:L9B:57:ARG:HB2	1.78	0.65
34:L9B:76:THR:HA	34:L9B:139:GLN:HB2	1.78	0.65
33:L6A:7:LEU:HD22	33:L6A:69:ARG:HH21	1.62	0.65
3:S3B:136:GLN:O	3:S3B:140:ARG:HG2	1.97	0.65
9:S9B:96:LEU:HD12	9:S9B:101:PHE:HB2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L6B:77:LYS:HE2	33:L6B:138:LYS:HB2	1.80	0.64
33:L6B:98:LEU:HD21	33:L6B:105:LEU:HB3	1.78	0.64
29:L2A:70:TRP:O	29:L2A:73:VAL:HG23	1.96	0.64
34:L9A:86:THR:H	34:L9A:123:LEU:HD12	1.62	0.64
8:S8B:39:LEU:HD12	8:S8B:44:PHE:HB3	1.78	0.64
34:L9A:79:ILE:HD12	34:L9A:80:PRO:HD2	1.78	0.64
34:L9A:40:THR:HG22	34:L9A:42:SER:H	1.61	0.64
4:S4B:187:ARG:NH2	4:S4B:193:ASP:OD2	2.30	0.64
32:L5B:47:LYS:HD2	32:L5B:81:LYS:HB2	1.78	0.64
5:S5B:142:LEU:O	5:S5B:143:ARG:NH1	2.31	0.64
33:L6B:8:PRO:HG2	33:L6B:69:ARG:HG2	1.80	0.64
28:5SA:43:U:C5	32:L5A:69:ALA:HB1	2.33	0.64
2:S2B:153:ARG:O	2:S2B:155:LEU:N	2.31	0.64
32:L5B:151:ALA:O	32:L5B:153:ARG:NH1	2.30	0.64
33:L6B:10:PRO:CB	33:L6B:50:VAL:CG1	2.75	0.64
34:L9B:118:LYS:HG2	34:L9B:119:PRO:HD2	1.79	0.64
28:5SB:17:A:H3'	28:5SB:18:G:H5'	1.79	0.64
2:S2A:87:ARG:NH1	2:S2A:220:ASP:OD1	2.31	0.63
34:L9A:85:GLU:OE2	34:L9A:86:THR:OG1	2.11	0.63
3:S3B:138:VAL:HG11	3:S3B:170:GLN:HG3	1.81	0.63
30:L3A:28:ALA:HB3	30:L3A:93:VAL:HG12	1.79	0.63
28:5SB:44:C:O3'	32:L5B:67:LYS:HE2	1.97	0.63
31:L4A:117:ARG:NH2	31:L4A:189:THR:O	2.32	0.63
7:S7B:113:GLU:HB2	7:S7B:119:ARG:HG3	1.80	0.63
9:S9B:71:SER:HA	9:S9B:74:ILE:HD12	1.79	0.63
9:S9A:7:THR:O	9:S9A:83:ARG:HD2	1.98	0.63
9:S9B:17:VAL:HG21	9:S9B:80:GLY:HA3	1.79	0.63
30:L3A:97:LYS:N	30:L3A:100:GLU:OE2	2.27	0.63
31:L4A:65:TRP:HZ3	31:L4A:73:ALA:O	1.82	0.63
30:L3B:54:GLN:HG2	30:L3B:59:VAL:HG23	1.80	0.63
34:L9A:133:HIS:CB	34:L9A:134:PRO:HD2	2.18	0.63
4:S4A:167:GLY:HA3	29:L2B:135:PHE:CE1	2.34	0.62
8:S8A:49:GLU:HG2	8:S8A:62:TYR:HE2	1.63	0.62
29:L2A:130:ALA:HB2	29:L2A:192:THR:HG22	1.79	0.62
8:S8B:42:GLU:HG3	8:S8B:109:ILE:HD12	1.81	0.62
32:L5B:6:ALA:HB3	32:L5B:104:GLU:OE2	1.99	0.62
34:L9B:81:VAL:HG13	34:L9B:144:VAL:H	1.63	0.62
6:S6A:27:GLN:HA	6:S6A:30:LEU:HD12	1.81	0.62
29:L2A:71:ASP:OD1	29:L2A:103:ARG:NH2	2.32	0.62
33:L6A:45:VAL:HA	33:L6A:50:VAL:HG12	1.80	0.62
34:L9A:72:LEU:HD13	34:L9A:107:VAL:HG11	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S3B:95:THR:HG22	3:S3B:97:LYS:HG2	1.81	0.62
2:S2A:178:ARG:HH22	8:S8A:68:ARG:HH22	1.46	0.62
2:S2B:172:ILE:H	2:S2B:172:ILE:HD12	1.64	0.62
4:S4B:100:ARG:HE	4:S4B:137:SER:HA	1.62	0.62
33:L6A:88:LEU:N	33:L6A:88:LEU:HD12	2.14	0.62
34:L9A:92:VAL:HG13	34:L9A:120:ILE:HG23	1.80	0.62
2:S2B:178:ARG:NH1	2:S2B:196:LEU:O	2.29	0.62
7:S7B:54:THR:O	7:S7B:56:GLN:N	2.32	0.62
28:5SB:2:A:C8	28:5SB:3:U:C5	2.88	0.62
29:L2B:5:LYS:H	29:L2B:5:LYS:HD2	1.64	0.62
9:S9A:46:ALA:HB2	9:S9A:74:ILE:HG23	1.79	0.62
30:L3A:47:VAL:HG11	30:L3A:86:PRO:HD2	1.82	0.62
3:S3B:74:GLY:O	3:S3B:79:ARG:NH2	2.32	0.62
33:L6B:70:THR:HG22	33:L6B:74:ASN:ND2	2.15	0.62
31:L4B:24:LEU:HD23	31:L4B:115:ALA:HA	1.80	0.62
30:L3A:174:ASP:HB3	30:L3A:183:LEU:HD22	1.82	0.62
33:L6A:130:ARG:HG2	33:L6A:130:ARG:HH11	1.64	0.62
32:L5B:43:LEU:HD21	32:L5B:153:ARG:HD2	1.82	0.62
34:L9A:109:ILE:HD12	34:L9A:111:PRO:HB3	1.80	0.62
4:S4B:152:SER:HA	4:S4B:155:LEU:HD23	1.82	0.62
31:L4B:143:ALA:HB1	31:L4B:148:LEU:HB2	1.81	0.62
9:S9B:110:GLU:HG2	9:S9B:119:ALA:HB1	1.80	0.62
31:L4B:124:LEU:HB3	31:L4B:193:VAL:HG22	1.82	0.62
29:L2A:70:TRP:CH2	29:L2A:150:LYS:HA	2.34	0.61
32:L5A:37:VAL:HG22	32:L5A:159:VAL:HG12	1.82	0.61
34:L9A:69:LYS:CE	34:L9A:136:VAL:HG23	2.30	0.61
2:S2B:119:GLU:HA	2:S2B:122:PHE:HB2	1.82	0.61
33:L6B:10:PRO:HG2	33:L6B:50:VAL:CG1	2.22	0.61
29:L2A:96:HIS:CD2	29:L2A:102:LYS:HG2	2.35	0.61
28:5SB:104:A:N7	62:5SB:302:HOH:O	2.31	0.61
29:L2B:242:ARG:H	29:L2B:242:ARG:HD2	1.65	0.61
34:L9A:123:LEU:HD23	34:L9A:142:VAL:HG12	1.80	0.61
2:S2B:5:ILE:HG12	2:S2B:55:PHE:CD1	2.35	0.61
29:L2B:71:ASP:N	29:L2B:71:ASP:OD1	2.31	0.61
33:L6A:87:LEU:HD12	33:L6A:131:VAL:HG12	1.81	0.61
3:S3A:73:PRO:HA	3:S3A:76:VAL:HG22	1.83	0.61
9:S9B:4:TYR:CE2	9:S9B:88:TYR:CB	2.84	0.61
28:5SB:24:U:H3	28:5SB:63:G:H1	1.48	0.61
2:S2B:54:THR:HG23	2:S2B:199:TYR:HB3	1.82	0.61
5:S5B:144:THR:N	5:S5B:147:ASP:OD1	2.34	0.61
33:L6B:33:LEU:HB2	33:L6B:75:ALA:HB1	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S5A:90:VAL:O	5:S5A:120:THR:HA	1.99	0.61
33:L6A:98:LEU:HD22	33:L6A:125:VAL:HB	1.83	0.61
30:L3B:176:ILE:HD12	30:L3B:181:LEU:HD23	1.81	0.61
28:5SB:15:A:O2'	28:5SB:17:A:O5'	2.19	0.60
34:L9B:2:LYS:HG3	34:L9B:39:ALA:HB3	1.83	0.60
7:S7B:27:ILE:HA	7:S7B:30:ILE:HD12	1.83	0.60
33:L6B:25:LYS:N	33:L6B:25:LYS:HD2	2.16	0.60
8:S8B:124:ALA:O	8:S8B:128:GLY:N	2.35	0.60
33:L6B:20:ALA:HB1	33:L6B:23:ARG:NH1	2.17	0.60
34:L9B:4:ILE:HG12	34:L9B:18:VAL:HG22	1.82	0.60
7:S7A:49:ILE:O	7:S7A:53:LYS:HB3	2.02	0.60
31:L4A:101:LEU:HD12	31:L4A:102:PRO:HD2	1.83	0.60
2:S2B:97:TRP:HZ3	2:S2B:99:GLY:HA2	1.67	0.60
9:S9B:18:PHE:O	9:S9B:62:TYR:N	2.32	0.60
34:L9B:79:ILE:HG12	34:L9B:104:GLN:OE1	2.02	0.60
33:L6A:87:LEU:CB	33:L6A:163:TYR:O	2.50	0.60
29:L2B:26:LYS:HB3	29:L2B:83:GLU:HG2	1.84	0.60
31:L4B:107:LYS:NZ	31:L4B:205:ARG:O	2.27	0.60
34:L9A:87:LYS:HA	34:L9A:122:GLU:HA	1.83	0.60
3:S3A:116:VAL:HG21	3:S3A:202:ILE:HD11	1.82	0.60
30:L3A:24:THR:HG22	30:L3A:186:GLY:O	2.02	0.60
33:L6A:4:ILE:O	33:L6A:69:ARG:HG2	2.01	0.60
33:L6A:115:VAL:HG11	33:L6A:148:ILE:HD11	1.84	0.60
29:L2B:35:LYS:HG3	29:L2B:36:PRO:HD2	1.83	0.60
30:L3B:87:GLU:H	30:L3B:87:GLU:CD	2.05	0.60
30:L3B:117:MET:O	30:L3B:118:LYS:HG2	2.01	0.60
34:L9B:123:LEU:HA	34:L9B:142:VAL:HG11	1.84	0.60
34:L9A:73:GLU:CD	34:L9A:136:VAL:CG2	2.70	0.60
8:S8A:29:SER:HB3	8:S8A:32:LYS:HG3	1.83	0.59
2:S2A:67:THR:HG21	2:S2A:155:LEU:HD11	1.82	0.59
32:L5A:43:LEU:HD21	32:L5A:153:ARG:HD2	1.84	0.59
9:S9B:19:LEU:HA	9:S9B:61:ALA:HA	1.84	0.59
30:L3A:11:MET:HG2	30:L3A:24:THR:HB	1.83	0.59
34:L9A:40:THR:HB	34:L9A:43:ASN:H	1.67	0.59
2:S2B:178:ARG:NH2	8:S8B:74:PRO:HG3	2.17	0.59
33:L6B:6:ARG:C	33:L6B:8:PRO:HD3	2.22	0.59
4:S4A:128:VAL:HB	4:S4A:133:VAL:HG21	1.84	0.59
7:S7A:20:ASP:OD2	7:S7A:23:VAL:N	2.34	0.59
2:S2B:73:THR:HB	2:S2B:96:ARG:H	1.68	0.59
2:S2B:178:ARG:NH2	8:S8B:68:ARG:HH22	2.01	0.59
29:L2B:12:SER:HB2	29:L2B:208:LYS:HB3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S4B:22:LYS:HB2	4:S4B:26:CYS:SG	2.41	0.59
34:L9B:82:ARG:HH11	34:L9B:90:GLY:HA3	1.67	0.59
4:S4B:191:ARG:NH1	4:S4B:194:LEU:O	2.33	0.59
31:L4B:11:VAL:HG22	31:L4B:125:LEU:HB2	1.84	0.59
6:S6A:82:ARG:HB2	6:S6A:85:VAL:HG23	1.85	0.59
5:S5B:31:LEU:HD11	5:S5B:43:LEU:HD11	1.83	0.59
9:S9B:4:TYR:CE2	9:S9B:88:TYR:CD1	2.91	0.59
32:L5B:64:THR:OG1	32:L5B:94:LEU:HD13	2.03	0.59
4:S4A:61:LYS:HE3	4:S4A:65:ARG:HD3	1.83	0.59
9:S9A:10:ARG:HG3	9:S9A:10:ARG:O	2.03	0.59
2:S2B:137:ARG:C	2:S2B:137:ARG:HH11	2.06	0.59
29:L2A:17:THR:HB	29:L2A:205:VAL:H	1.66	0.58
29:L2A:166:GLN:HB2	29:L2A:174:ILE:HG22	1.85	0.58
6:S6B:17:SER:O	6:S6B:21:LEU:HD23	2.02	0.58
34:L9B:56:LYS:O	34:L9B:60:GLU:N	2.35	0.58
30:L3A:119:ARG:HD3	30:L3A:160:TYR:HB2	1.84	0.58
34:L9A:131:LYS:HA	34:L9A:131:LYS:HE3	1.84	0.58
4:S4B:60:GLU:OE2	4:S4B:199:ASN:N	2.33	0.58
28:5SB:89:G:N2	28:5SB:92:A:OP2	2.36	0.58
29:L2B:182:LEU:N	29:L2B:272:ALA:HB3	2.12	0.58
30:L3B:14:ILE:HD11	30:L3B:173:VAL:HG11	1.85	0.58
4:S4A:98:GLU:OE2	4:S4A:103:ASN:ND2	2.32	0.58
28:5SA:17:A:H1'	28:5SA:112:G:C8	2.38	0.58
6:S6B:9:VAL:HB	6:S6B:87:ARG:HB2	1.85	0.58
31:L4B:40:GLN:NE2	31:L4B:182:ASN:HB2	2.18	0.58
34:L9A:109:ILE:CA	34:L9A:130:TYR:OH	2.51	0.58
31:L4B:184:TYR:CE2	31:L4B:188:ARG:HD2	2.38	0.58
33:L6B:78:GLY:HA3	33:L6B:136:ILE:O	2.02	0.58
28:5SA:42:U:H1'	28:5SA:47:A:H61	1.68	0.58
33:L6A:3:ARG:HD3	33:L6A:5:GLY:H	1.66	0.58
3:S3B:44:GLU:HA	3:S3B:52:LEU:HD11	1.85	0.58
3:S3A:83:ARG:O	3:S3A:86:VAL:HG22	2.04	0.58
31:L4A:9:ILE:HD11	31:L4A:125:LEU:HG	1.86	0.58
29:L2B:17:THR:HG22	29:L2B:205:VAL:H	1.67	0.58
32:L5B:4:ASP:OD2	32:L5B:9:ARG:NH1	2.37	0.58
32:L5B:66:GLN:OE1	32:L5B:98:ARG:NH1	2.35	0.58
5:S5A:8:GLU:HG2	5:S5A:34:VAL:HG22	1.86	0.58
9:S9A:77:ILE:O	9:S9A:81:ILE:HG12	2.04	0.58
2:S2B:5:ILE:HG12	2:S2B:55:PHE:HD1	1.69	0.58
9:S9B:58:HIS:O	9:S9B:59:PHE:CE1	2.49	0.58
29:L2B:238:GLY:O	29:L2B:240:ALA:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S2A:9:GLU:N	2:S2A:9:GLU:OE1	2.37	0.58
3:S3A:36:ASP:HA	3:S3A:39:ILE:HD12	1.85	0.58
8:S8B:103:VAL:HG21	8:S8B:110:ALA:HB2	1.86	0.58
31:L4B:117:ARG:NH1	31:L4B:120:GLU:OE2	2.37	0.58
30:L3B:77:ILE:HG12	30:L3B:195:LEU:HD22	1.86	0.58
2:S2A:7:VAL:HA	2:S2A:217:ARG:HH21	1.69	0.58
4:S4A:105:VAL:HG13	4:S4A:110:PHE:HB2	1.84	0.58
5:S5A:142:LEU:O	5:S5A:143:ARG:NH1	2.31	0.58
8:S8A:9:MET:HG3	8:S8A:26:VAL:HG11	1.86	0.58
29:L2A:16:MET:HG3	29:L2A:207:GLY:HA3	1.85	0.58
33:L6A:87:LEU:HA	33:L6A:164:TYR:HA	1.86	0.58
4:S4B:176:LEU:HG	4:S4B:178:VAL:HG22	1.85	0.58
6:S6B:3:ARG:HG3	6:S6B:93:SER:HB3	1.86	0.58
7:S7A:23:VAL:HG13	7:S7A:43:PHE:CE2	2.39	0.57
31:L4A:28:ILE:HD13	31:L4A:30:PRO:HD3	1.86	0.57
33:L6A:26:VAL:HG21	33:L6A:75:ALA:HB1	1.86	0.57
33:L6A:24:VAL:HG22	33:L6A:35:VAL:HB	1.85	0.57
9:S9B:13:ALA:HB2	9:S9B:68:GLY:HA3	1.85	0.57
31:L4B:149:ASP:N	31:L4B:149:ASP:OD1	2.38	0.57
5:S5B:74:GLY:O	5:S5B:115:VAL:HG23	2.04	0.57
5:S5B:81:GLU:HB3	5:S5B:90:VAL:HG12	1.86	0.57
9:S9B:55:ALA:CB	9:S9B:59:PHE:CD2	2.86	0.57
32:L5B:37:VAL:HG23	32:L5B:99:MET:HE3	1.85	0.57
2:S2A:17:PHE:HD2	2:S2A:44:LEU:HD11	1.69	0.57
3:S3A:11:ARG:O	3:S3A:13:GLY:N	2.38	0.57
3:S3A:20:SER:HB3	3:S3A:40:ARG:HH22	1.67	0.57
4:S4A:201:GLN:O	4:S4A:205:GLU:HG3	2.03	0.57
29:L2A:10:THR:HG23	29:L2A:13:ARG:HB2	1.86	0.57
31:L4A:63:LYS:HE3	31:L4A:67:GLN:HB3	1.87	0.57
32:L5A:124:SER:HB2	32:L5A:131:TYR:CE1	2.40	0.57
2:S2B:236:TYR:HB3	2:S2B:239:VAL:HB	1.87	0.57
3:S3B:50:ALA:HB2	3:S3B:76:VAL:CG1	2.31	0.57
7:S7B:50:ILE:HB	7:S7B:58:PRO:HG3	1.86	0.57
6:S6A:53:ALA:O	6:S6A:54:LYS:HG2	2.05	0.57
9:S9A:70:LYS:O	9:S9A:74:ILE:HG13	2.05	0.57
31:L4A:65:TRP:CB	31:L4A:66:PRO:CD	2.82	0.57
4:S4A:196:LEU:CD1	4:S4A:198:VAL:HB	2.35	0.57
28:5SA:42:U:H3'	28:5SA:43:U:C5'	2.35	0.57
28:5SA:82:U:H2'	28:5SA:83:G:N2	2.16	0.57
29:L2A:10:THR:CG2	29:L2A:13:ARG:HB2	2.35	0.57
8:S8B:49:GLU:HG2	8:S8B:62:TYR:HE2	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:L3B:24:THR:HG23	30:L3B:186:GLY:O	2.05	0.57
34:L9B:78:THR:HG21	34:L9B:140:LEU:HD13	1.86	0.57
29:L2A:112:GLN:H	29:L2A:115:GLN:HE21	1.53	0.57
2:S2B:105:PHE:O	2:S2B:109:SER:N	2.37	0.57
4:S4B:121:VAL:HG22	4:S4B:126:ILE:HG13	1.87	0.56
29:L2B:70:TRP:CH2	29:L2B:150:LYS:HA	2.39	0.56
2:S2A:17:PHE:HB3	2:S2A:44:LEU:HD21	1.87	0.56
4:S4A:109:GLY:HA3	4:S4A:165:MET:SD	2.45	0.56
9:S9A:21:PRO:HA	9:S9A:59:PHE:HA	1.86	0.56
33:L6A:3:ARG:HH11	33:L6A:54:ARG:HH12	1.53	0.56
34:L9A:61:ARG:HH21	34:L9A:64:GLU:HG3	1.70	0.56
5:S5B:48:ALA:HB2	5:S5B:57:LYS:HD3	1.86	0.56
6:S6B:20:ALA:HA	6:S6B:23:LYS:HB2	1.88	0.56
32:L5B:67:LYS:HD3	32:L5B:67:LYS:N	2.17	0.56
2:S2A:80:ILE:HD11	2:S2A:208:ILE:HG23	1.87	0.56
31:L4B:23:ASP:OD1	31:L4B:203:GLN:NE2	2.38	0.56
31:L4B:157:VAL:HB	31:L4B:194:MET:HG2	1.88	0.56
2:S2A:31:TYR:HB3	2:S2A:42:ILE:HD11	1.88	0.56
2:S2A:223:ILE:O	2:S2A:227:GLY:N	2.36	0.56
9:S9A:8:GLY:HA3	9:S9A:76:ALA:O	2.05	0.56
31:L4A:184:TYR:O	31:L4A:188:ARG:HB2	2.06	0.56
34:L9A:113:ARG:HD3	34:L9A:113:ARG:N	2.21	0.56
34:L9A:136:VAL:CG2	34:L9A:137:PRO:CD	2.80	0.56
2:S2B:78:GLN:O	2:S2B:94:ASN:ND2	2.32	0.56
34:L9B:42:SER:HA	34:L9B:45:LYS:HE3	1.86	0.56
9:S9A:3:GLN:HB3	9:S9A:20:ARG:HG2	1.86	0.56
28:5SA:31:A:H2'	28:5SA:32:C:O4'	2.06	0.56
33:L6A:127:GLU:O	33:L6A:129:THR:N	2.39	0.56
3:S3B:152:ILE:HB	3:S3B:199:LYS:HB2	1.88	0.56
9:S9B:74:ILE:O	9:S9B:78:LYS:NZ	2.38	0.56
2:S2A:168:THR:OG1	2:S2A:169:LYS:N	2.39	0.56
3:S3A:130:VAL:O	3:S3A:134:ILE:HG12	2.06	0.56
9:S9A:25:LYS:HB2	9:S9A:60:ASP:OD2	2.06	0.56
32:L5A:146:TYR:O	32:L5A:149:VAL:HG22	2.05	0.56
4:S4A:153:ARG:NE	4:S4A:181:MET:SD	2.63	0.56
4:S4A:187:ARG:NH2	4:S4A:190:ASP:H	2.03	0.56
9:S9A:8:GLY:HA2	9:S9A:79:LEU:HD12	1.88	0.56
2:S2A:92:TYR:CE1	2:S2A:151:GLY:HA3	2.41	0.56
31:L4A:123:LEU:HD12	31:L4A:124:LEU:H	1.70	0.56
33:L6A:30:LYS:HD2	33:L6A:81:GLU:H	1.71	0.56
34:L9A:21:VAL:HG21	34:L9A:25:TYR:HD2	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:5SB:4:C:H2'	28:5SB:5:C:C6	2.41	0.56
28:5SB:16:U:O2'	28:5SB:110:U:O2'	2.13	0.56
30:L3B:9:VAL:CG1	30:L3B:27:LEU:HD23	2.34	0.56
30:L3B:132:HIS:NE2	62:L3B:401:HOH:O	2.33	0.56
34:L9A:79:ILE:HG22	34:L9A:141:LYS:O	2.05	0.55
2:S2B:55:PHE:CD1	2:S2B:221:LEU:HD22	2.40	0.55
31:L4B:135:LYS:HB3	31:L4B:138:GLU:HG3	1.88	0.55
31:L4A:67:GLN:HG3	31:L4A:67:GLN:O	2.04	0.55
5:S5B:105:VAL:HG21	5:S5B:128:PRO:HB3	1.87	0.55
8:S8B:13:ILE:O	8:S8B:17:THR:HG23	2.06	0.55
28:5SB:17:A:H3'	28:5SB:18:G:C5'	2.37	0.55
3:S3B:156:ARG:NH1	3:S3B:193:TYR:O	2.39	0.55
9:S9B:125:TYR:HD1	9:S9B:126:SER:N	2.05	0.55
31:L4B:123:LEU:HD12	31:L4B:124:LEU:H	1.71	0.55
3:S3A:122:GLU:O	3:S3A:126:ARG:HG2	2.07	0.55
5:S5A:48:ALA:HB2	5:S5A:57:LYS:HD3	1.88	0.55
33:L6A:87:LEU:O	33:L6A:87:LEU:CD1	2.46	0.55
3:S3B:19:GLU:HA	3:S3B:54:ARG:HH12	1.71	0.55
28:5SB:4:C:H2'	28:5SB:5:C:H6	1.72	0.55
33:L6B:138:LYS:HA	33:L6B:141:VAL:HG12	1.88	0.55
34:L9B:82:ARG:NH2	34:L9B:96:ASP:OD2	2.39	0.55
30:L3A:195:LEU:HD12	30:L3A:196:VAL:H	1.72	0.55
31:L4A:167:ALA:HB1	31:L4A:173:VAL:HG11	1.88	0.55
34:L9B:70:GLU:O	34:L9B:74:ASN:ND2	2.40	0.55
34:L9B:93:THR:O	34:L9B:97:ILE:HG13	2.06	0.55
2:S2A:28:PHE:HE2	2:S2A:42:ILE:HD12	1.71	0.55
3:S3A:78:GLY:C	3:S3A:79:ARG:HD3	2.27	0.55
34:L9A:113:ARG:O	34:L9A:131:LYS:HD3	2.05	0.55
6:S6A:15:ASP:OD2	6:S6A:17:SER:HB2	2.06	0.55
8:S8B:17:THR:HG22	8:S8B:63:LEU:HD23	1.88	0.55
33:L6B:10:PRO:HG2	33:L6B:50:VAL:C	2.25	0.55
2:S2A:93:VAL:HG11	2:S2A:97:TRP:HA	1.89	0.55
8:S8A:51:VAL:HG21	8:S8A:60:ARG:HG2	1.89	0.55
2:S2A:79:ASP:O	2:S2A:82:ARG:HB3	2.07	0.55
4:S4A:88:VAL:O	4:S4A:89:THR:HB	2.06	0.55
8:S8A:10:LEU:HD22	8:S8A:83:ILE:HD11	1.89	0.55
8:S8B:44:PHE:HD1	8:S8B:80:ILE:HG12	1.71	0.55
32:L5B:49:ASP:HB3	32:L5B:52:ILE:HG22	1.88	0.55
33:L6B:46:GLU:HB3	33:L6B:49:VAL:HG23	1.87	0.55
4:S4A:196:LEU:HD12	4:S4A:198:VAL:HB	1.88	0.55
34:L9A:4:ILE:HG12	34:L9A:18:VAL:HG22	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S4B:173:TRP:CD2	4:S4B:189:PRO:HB3	2.42	0.55
7:S7B:44:TYR:HA	7:S7B:47:CYS:HB3	1.88	0.55
4:S4A:150:GLU:C	4:S4A:152:SER:H	2.09	0.54
5:S5A:102:ALA:HB1	5:S5A:106:PRO:HG2	1.89	0.54
3:S3B:58:GLU:HB3	3:S3B:65:ALA:HB3	1.89	0.54
2:S2A:168:THR:HG21	2:S2A:191:ASP:HB3	1.89	0.54
3:S3A:137:ALA:O	3:S3A:141:VAL:HG23	2.07	0.54
7:S7A:91:VAL:CG2	7:S7A:96:GLN:HG2	2.37	0.54
8:S8A:124:ALA:O	8:S8A:128:GLY:N	2.39	0.54
3:S3B:37:GLN:O	3:S3B:41:GLY:N	2.35	0.54
33:L6B:87:LEU:HB3	33:L6B:162:ILE:HG22	1.89	0.54
3:S3A:70:VAL:HG12	3:S3A:72:LYS:H	1.73	0.54
32:L5A:11:TYR:HA	32:L5A:15:VAL:HB	1.88	0.54
4:S4B:57:ARG:HH22	5:S5B:107:ARG:HD3	1.72	0.54
5:S5B:33:VAL:HG11	5:S5B:109:ILE:HA	1.89	0.54
28:5SA:98:U:H2'	28:5SA:99:G:H8	1.71	0.54
7:S7A:15:ASP:OD1	7:S7A:44:TYR:OH	2.25	0.54
34:L9A:88:ILE:HG12	34:L9A:122:GLU:N	2.22	0.54
6:S6B:15:ASP:O	6:S6B:19:LEU:N	2.35	0.54
28:5SB:47:A:OP2	32:L5B:96:ARG:NH1	2.39	0.54
8:S8B:99:GLU:OE1	8:S8B:99:GLU:N	2.40	0.54
34:L9B:124:GLY:H	34:L9B:142:VAL:HG11	1.72	0.54
3:S3A:188:LEU:CD1	3:S3A:195:VAL:HG13	2.37	0.54
5:S5A:96:PRO:HA	5:S5A:117:ASP:OD2	2.08	0.54
3:S3B:47:LEU:HB3	3:S3B:52:LEU:HD13	1.89	0.54
34:L9B:75:LEU:HD21	34:L9B:105:HIS:CE1	2.43	0.54
2:S2A:87:ARG:HH11	2:S2A:219:VAL:HB	1.72	0.54
30:L3B:179:GLU:HB3	30:L3B:181:LEU:HB2	1.90	0.54
34:L9B:52:ARG:HA	34:L9B:55:ALA:HB3	1.89	0.54
3:S3A:182:ILE:HG13	3:S3A:203:PHE:HD1	1.73	0.54
5:S5A:52:PRO:HA	5:S5A:55:VAL:HG12	1.89	0.54
8:S8A:13:ILE:O	8:S8A:17:THR:HG23	2.08	0.54
8:S8B:122:ARG:NH1	8:S8B:122:ARG:HB2	2.23	0.54
28:5SB:39:C:N3	28:5SB:50:A:O2'	2.37	0.54
5:S5A:100:VAL:O	5:S5A:107:ARG:NH2	2.41	0.53
7:S7A:5:ARG:HB3	7:S7A:7:ALA:H	1.74	0.53
31:L4A:29:ASN:HB3	31:L4A:112:MET:HE1	1.90	0.53
33:L6B:76:VAL:HA	33:L6B:79:VAL:HG22	1.90	0.53
3:S3A:57:ILE:HG12	3:S3A:66:VAL:HG22	1.89	0.53
8:S8A:97:VAL:HG23	8:S8A:100:ILE:HD12	1.88	0.53
2:S2B:187:LEU:HD11	2:S2B:204:ASN:N	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S3A:7:PRO:O	3:S3A:11:ARG:HG2	2.07	0.53
4:S4A:49:ARG:H	4:S4A:49:ARG:HD3	1.72	0.53
30:L3A:176:ILE:HB	30:L3A:181:LEU:HB2	1.89	0.53
34:L9A:6:LEU:H	34:L9A:36:ALA:HA	1.73	0.53
33:L6B:46:GLU:OE1	33:L6B:51:ARG:NH1	2.41	0.53
4:S4B:162:LEU:HD13	4:S4B:181:MET:HE2	1.89	0.53
8:S8B:44:PHE:CD1	8:S8B:80:ILE:HG12	2.44	0.53
28:5SB:47:A:C4	28:5SB:48:A:C8	2.97	0.53
2:S2A:54:THR:HG21	2:S2A:201:ILE:HD11	1.90	0.53
8:S8A:83:ILE:HG13	8:S8A:137:VAL:HG22	1.89	0.53
30:L3B:120:TRP:CG	30:L3B:155:LYS:HB3	2.44	0.53
30:L3B:170:LEU:HD23	30:L3B:184:VAL:HB	1.91	0.53
3:S3A:95:THR:HG23	3:S3A:97:LYS:HE2	1.89	0.53
30:L3A:179:GLU:HB3	30:L3A:181:LEU:HD13	1.91	0.53
33:L6A:85:LYS:HE3	33:L6A:142:GLY:HA2	1.90	0.53
34:L9A:11:ASN:O	34:L9A:12:LEU:HB2	2.09	0.53
34:L9A:135:GLU:OE1	34:L9A:135:GLU:N	2.41	0.53
34:L9B:38:LEU:H	34:L9B:38:LEU:HD12	1.74	0.53
3:S3B:14:ILE:O	3:S3B:15:THR:HG22	2.08	0.53
5:S5B:100:VAL:HG23	5:S5B:107:ARG:NH2	2.24	0.53
33:L6B:10:PRO:HB2	33:L6B:50:VAL:HG12	1.90	0.53
34:L9A:110:ASP:N	34:L9A:130:TYR:OH	2.42	0.53
3:S3B:118:GLN:HG3	3:S3B:187:ALA:HB2	1.91	0.53
2:S2A:69:LEU:HB3	2:S2A:162:ILE:HG22	1.90	0.53
5:S5A:45:PHE:CE2	5:S5A:47:LYS:HD2	2.44	0.53
33:L6A:103:LEU:HB3	33:L6A:115:VAL:HB	1.90	0.53
2:S2B:59:GLU:HB2	2:S2B:221:LEU:HD21	1.90	0.53
4:S4A:88:VAL:HG12	4:S4A:91:SER:H	1.74	0.52
28:5SA:16:U:H4'	28:5SA:17:A:OP2	2.09	0.52
9:S9B:4:TYR:CZ	9:S9B:88:TYR:CG	2.97	0.52
31:L4B:153:SER:OG	31:L4B:190:GLU:HG3	2.09	0.52
5:S5A:28:PHE:O	5:S5A:47:LYS:HA	2.09	0.52
6:S6A:6:VAL:HG22	6:S6A:90:VAL:HG22	1.91	0.52
33:L6A:41:MET:HA	33:L6A:53:GLU:O	2.08	0.52
2:S2B:7:VAL:HG22	2:S2B:8:LYS:H	1.75	0.52
30:L3B:120:TRP:CD1	30:L3B:155:LYS:HB3	2.45	0.52
5:S5A:18:ARG:NH2	5:S5A:27:ARG:HE	2.08	0.52
31:L4A:107:LYS:HE3	31:L4A:206:ILE:HD12	1.91	0.52
33:L6A:131:VAL:HG22	33:L6A:132:ARG:H	1.75	0.52
28:5SB:15:A:N1	28:5SB:71:G:O2'	2.32	0.52
28:5SB:19:C:H2'	28:5SB:20:G:O4'	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S5A:31:LEU:HD22	5:S5A:43:LEU:HD11	1.90	0.52
2:S2B:121:LEU:HA	2:S2B:124:SER:HB3	1.91	0.52
3:S3B:91:LEU:HB3	3:S3B:99:VAL:HG11	1.92	0.52
8:S8B:97:VAL:HA	8:S8B:100:ILE:HD11	1.91	0.52
5:S5A:81:GLU:HG2	5:S5A:90:VAL:HG22	1.91	0.52
6:S6A:67:MET:HB2	6:S6A:68:PRO:HD2	1.92	0.52
31:L4A:65:TRP:CZ3	31:L4A:73:ALA:O	2.62	0.52
32:L5A:55:LYS:O	32:L5A:58:GLN:HG3	2.09	0.52
34:L9A:25:TYR:HE1	34:L9A:29:TYR:CD2	2.28	0.52
34:L9A:93:THR:O	34:L9A:97:ILE:HG13	2.09	0.52
2:S2B:165:VAL:HA	2:S2B:187:LEU:HB3	1.90	0.52
30:L3B:174:ASP:HB3	30:L3B:183:LEU:HD22	1.91	0.52
31:L4B:185:ASP:HA	31:L4B:188:ARG:HD3	1.91	0.52
33:L6B:69:ARG:NH1	33:L6B:73:ALA:HB2	2.24	0.52
4:S4B:117:ALA:O	4:S4B:121:VAL:HG23	2.10	0.52
9:S9B:19:LEU:HD23	9:S9B:19:LEU:H	1.74	0.52
34:L9B:124:GLY:H	34:L9B:142:VAL:CG1	2.22	0.52
4:S4A:13:ARG:HB2	4:S4A:40:PRO:HD3	1.92	0.52
9:S9A:46:ALA:HA	9:S9A:78:LYS:HB2	1.92	0.52
31:L4B:22:ALA:HB1	31:L4B:24:LEU:HD13	1.92	0.52
34:L9B:144:VAL:HG22	34:L9B:145:VAL:H	1.75	0.52
29:L2A:260:ARG:HH22	29:L2A:266:SER:HG	1.55	0.52
31:L4A:125:LEU:HA	31:L4A:194:MET:O	2.10	0.52
32:L5A:4:ASP:OD2	32:L5A:9:ARG:NH1	2.43	0.52
32:L5A:66:GLN:OE1	32:L5A:98:ARG:NH1	2.43	0.52
33:L6A:154:PRO:HB3	33:L6A:163:TYR:CE2	2.45	0.52
4:S4B:106:TYR:HE1	4:S4B:112:VAL:O	1.93	0.52
29:L2A:77:ALA:HB2	29:L2A:97:TYR:CD1	2.44	0.52
33:L6A:164:TYR:N	33:L6A:167:GLU:OE1	2.40	0.52
3:S3B:50:ALA:HB1	3:S3B:70:VAL:HG11	1.91	0.52
8:S8B:12:ARG:NH1	8:S8B:27:PRO:HD3	2.25	0.52
32:L5B:7:LEU:HA	32:L5B:10:LYS:HB3	1.91	0.52
32:L5B:37:VAL:O	32:L5B:94:LEU:HD23	2.09	0.52
4:S4A:166:LYS:HG3	4:S4A:178:VAL:HG11	1.91	0.51
3:S3A:123:GLN:O	3:S3A:128:PHE:HB2	2.10	0.51
4:S4A:142:PRO:HB3	4:S4A:186:LEU:O	2.10	0.51
6:S6A:16:GLN:HA	6:S6A:19:LEU:HB3	1.90	0.51
4:S4A:65:ARG:NH1	4:S4A:70:ILE:O	2.43	0.51
28:5SA:34:C:C2	28:5SA:53:G:N2	2.77	0.51
31:L4A:11:VAL:HG22	31:L4A:125:LEU:HB2	1.92	0.51
31:L4A:65:TRP:CZ3	31:L4A:72:ARG:CB	2.86	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S6B:79:LEU:O	6:S6B:85:VAL:HG11	2.11	0.51
3:S3A:11:ARG:HH21	3:S3A:180:ALA:HB3	1.75	0.51
3:S3A:134:ILE:HG22	3:S3A:168:ALA:HB3	1.92	0.51
34:L9A:82:ARG:HH21	34:L9A:145:VAL:HG13	1.75	0.51
5:S5B:72:GLN:O	5:S5B:75:THR:HG22	2.10	0.51
7:S7B:31:MET:HA	7:S7B:39:ALA:HB2	1.92	0.51
31:L4B:178:PRO:HB3	31:L4B:198:ALA:CB	2.40	0.51
33:L6B:122:THR:HG22	33:L6B:123:PHE:H	1.74	0.51
2:S2A:84:GLU:HB3	2:S2A:219:VAL:HG21	1.93	0.51
3:S3A:87:LEU:O	3:S3A:91:LEU:HG	2.10	0.51
28:5SA:50:A:H2'	28:5SA:51:C:C6	2.46	0.51
3:S3B:88:ARG:HA	3:S3B:91:LEU:HD12	1.91	0.51
3:S3B:179:ARG:HD2	3:S3B:207:VAL:H	1.76	0.51
30:L3B:1:MET:N	30:L3B:200:GLU:HG2	2.26	0.51
31:L4B:129:PHE:O	31:L4B:131:GLY:N	2.40	0.51
3:S3A:150:LYS:HG3	3:S3A:169:ALA:HB2	1.92	0.51
2:S2B:8:LYS:HE3	2:S2B:11:LEU:HD22	1.93	0.51
2:S2B:167:PRO:O	2:S2B:171:ALA:HB2	2.10	0.51
6:S6B:67:MET:HB2	6:S6B:68:PRO:HD2	1.92	0.51
30:L3B:40:GLU:HG3	30:L3B:41:LYS:N	2.26	0.51
34:L9B:133:HIS:ND1	34:L9B:134:PRO:HD3	2.26	0.51
7:S7A:26:PHE:O	7:S7A:30:ILE:HG13	2.11	0.51
31:L4A:129:PHE:O	31:L4A:131:GLY:N	2.38	0.51
3:S3B:188:LEU:O	3:S3B:190:ARG:NH1	2.44	0.51
34:L9A:46:ALA:O	34:L9A:50:ARG:HD3	2.11	0.51
34:L9A:69:LYS:HG2	34:L9A:136:VAL:CG2	2.38	0.51
2:S2B:178:ARG:HH21	8:S8B:74:PRO:HG3	1.76	0.51
5:S5A:81:GLU:CG	5:S5A:90:VAL:HG22	2.41	0.51
7:S7A:29:LYS:HG3	7:S7A:101:LEU:HD13	1.92	0.51
28:5SA:89:G:C2	28:5SA:91:G:H5"	2.45	0.51
34:L9A:57:ARG:NH1	34:L9A:61:ARG:HD2	2.26	0.51
2:S2B:22:LYS:HA	2:S2B:24:TRP:HD1	1.76	0.51
33:L6B:87:LEU:HD22	33:L6B:149:ARG:HG3	1.93	0.51
2:S2A:165:VAL:HG23	2:S2A:166:ASP:H	1.76	0.51
2:S2B:21:ARG:HA	2:S2B:39:ILE:HA	1.93	0.51
8:S8B:104:ARG:HB3	8:S8B:108:GLY:H	1.75	0.51
29:L2A:232:PRO:HB3	29:L2A:244:ARG:NH1	2.26	0.50
8:S8A:81:HIS:HB2	8:S8A:138:TRP:CZ3	2.46	0.50
34:L9A:2:LYS:HE3	34:L9A:20:ASP:HB3	1.93	0.50
2:S2A:46:LYS:HA	2:S2A:49:GLU:HB2	1.93	0.50
9:S9A:16:ARG:HB2	9:S9A:64:THR:HB	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:L4A:134:GLY:HA2	31:L4A:166:ALA:HB2	1.92	0.50
34:L9A:114:LEU:CD1	34:L9A:130:TYR:HA	2.38	0.50
29:L2B:134:ARG:HG3	29:L2B:135:PHE:CE1	2.46	0.50
32:L5B:114:ILE:HD13	32:L5B:140:ILE:HG21	1.93	0.50
4:S4A:173:TRP:CD2	4:S4A:189:PRO:HB3	2.47	0.50
4:S4A:175:SER:HB3	4:S4A:184:LYS:HB2	1.93	0.50
9:S9A:97:LYS:HB2	9:S9A:102:LEU:HD12	1.93	0.50
2:S2B:137:ARG:HH12	2:S2B:141:GLU:N	2.08	0.50
2:S2B:137:ARG:HH12	2:S2B:141:GLU:H	1.60	0.50
32:L5B:106:LEU:HD12	32:L5B:110:ALA:HB3	1.94	0.50
33:L6B:87:LEU:HA	33:L6B:163:TYR:O	2.11	0.50
34:L9B:109:ILE:HB	34:L9B:130:TYR:OH	2.12	0.50
2:S2B:92:TYR:CE2	2:S2B:151:GLY:HA3	2.46	0.50
8:S8B:87:SER:HB2	8:S8B:93:VAL:HB	1.92	0.50
32:L5B:18:GLU:HG2	32:L5B:175:LEU:HD13	1.93	0.50
32:L5B:80:PHE:O	32:L5B:82:LEU:HB2	2.11	0.50
34:L9B:81:VAL:HA	34:L9B:143:SER:HB2	1.93	0.50
3:S3A:79:ARG:NH2	3:S3A:82:GLU:HG3	2.27	0.50
9:S9A:65:VAL:HG21	9:S9A:77:ILE:HD11	1.94	0.50
31:L4A:178:PRO:HG2	31:L4A:179:GLU:OE2	2.11	0.50
4:S4B:3:ARG:NH2	4:S4B:5:ILE:HG13	2.26	0.50
5:S5B:35:GLY:HA3	5:S5B:112:LEU:HB3	1.94	0.50
30:L3B:14:ILE:HG13	30:L3B:21:VAL:HG13	1.94	0.50
5:S5A:33:VAL:HG11	5:S5A:109:ILE:HA	1.93	0.50
7:S7A:38:LEU:HD12	7:S7A:41:ARG:HD2	1.94	0.50
33:L6A:15:VAL:HG12	33:L6A:29:PRO:HD2	1.92	0.50
30:L3B:9:VAL:HG22	30:L3B:25:VAL:O	2.11	0.50
3:S3A:14:ILE:HG12	3:S3A:15:THR:OG1	2.12	0.50
9:S9A:26:VAL:HB	9:S9A:33:PHE:HB2	1.94	0.50
33:L6A:54:ARG:NE	33:L6A:57:ASP:OD1	2.40	0.50
33:L6A:171:LEU:N	33:L6A:171:LEU:CD1	2.73	0.50
2:S2B:64:ARG:HD2	2:S2B:64:ARG:O	2.11	0.50
2:S2B:221:LEU:HG	2:S2B:221:LEU:O	2.11	0.50
3:S3B:28:GLN:OE1	3:S3B:28:GLN:N	2.45	0.50
8:S8A:4:ASP:OD2	8:S8A:85:ARG:NH1	2.45	0.50
8:S8A:37:ARG:O	8:S8A:41:ARG:HB2	2.12	0.50
4:S4B:3:ARG:O	4:S4B:5:ILE:HD12	2.12	0.50
29:L2B:10:THR:OG1	29:L2B:13:ARG:HB2	2.12	0.50
32:L5B:59:GLU:HG3	32:L5B:144:ILE:HD11	1.94	0.50
29:L2A:33:LEU:O	29:L2A:64:ILE:HG22	2.12	0.49
32:L5A:107:LEU:HD22	32:L5A:178:PHE:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S3B:6:HIS:HD2	3:S3B:8:ILE:H	1.58	0.49
33:L6B:20:ALA:HB3	33:L6B:23:ARG:O	2.12	0.49
2:S2A:5:ILE:CD1	2:S2A:221:LEU:HD23	2.41	0.49
2:S2A:24:TRP:CZ3	2:S2A:26:PRO:HA	2.47	0.49
8:S8A:21:LYS:O	8:S8A:65:TYR:OH	2.23	0.49
8:S8A:44:PHE:HB3	8:S8A:80:ILE:HD11	1.94	0.49
8:S8A:121:ASP:OD1	8:S8A:121:ASP:N	2.45	0.49
31:L4A:181:LEU:HD22	31:L4A:186:ILE:HD11	1.93	0.49
2:S2A:10:LEU:O	2:S2A:13:ALA:N	2.34	0.49
8:S8B:122:ARG:HA	8:S8B:125:ARG:HB2	1.93	0.49
9:S9B:17:VAL:HA	9:S9B:63:ILE:HG23	1.93	0.49
30:L3B:169:ASN:HD22	30:L3B:203:LYS:HB2	1.77	0.49
6:S6A:62:TRP:C	6:S6A:63:TYR:HD1	2.16	0.49
8:S8A:6:ILE:HB	8:S8A:85:ARG:NH1	2.28	0.49
9:S9B:63:ILE:HD11	9:S9B:81:ILE:HD11	1.93	0.49
32:L5B:102:PHE:HE1	32:L5B:141:PHE:HE1	1.60	0.49
2:S2B:76:GLN:O	2:S2B:208:ILE:HG12	2.11	0.49
33:L6B:148:ILE:H	33:L6B:148:ILE:HD12	1.77	0.49
2:S2A:71:VAL:HG12	2:S2A:93:VAL:HB	1.94	0.49
9:S9A:3:GLN:OE1	9:S9A:20:ARG:NH1	2.45	0.49
31:L4A:127:GLU:C	31:L4A:129:PHE:H	2.14	0.49
31:L4A:197:ASP:O	31:L4A:198:ALA:HB3	2.12	0.49
34:L9A:38:LEU:HD12	34:L9A:40:THR:OG1	2.11	0.49
34:L9A:81:VAL:HG21	34:L9A:88:ILE:HD12	1.93	0.49
9:S9B:99:LEU:HB3	9:S9B:101:PHE:CE2	2.47	0.49
34:L9B:31:LEU:HD21	34:L9B:38:LEU:HG	1.94	0.49
34:L9B:81:VAL:HA	34:L9B:143:SER:CB	2.41	0.49
6:S6A:21:LEU:O	6:S6A:25:ILE:HG12	2.13	0.49
7:S7A:65:ALA:O	7:S7A:69:VAL:HG23	2.13	0.49
29:L2A:148:GLU:HB2	29:L2A:151:LYS:HD2	1.95	0.49
33:L6A:83:TYR:HD2	33:L6A:132:ARG:HH12	1.61	0.49
34:L9A:92:VAL:CG1	34:L9A:120:ILE:HG23	2.43	0.49
3:S3B:199:LYS:HB3	3:S3B:201:TYR:HE1	1.78	0.49
29:L2B:105:ILE:HD11	29:L2B:192:THR:HG21	1.94	0.49
31:L4B:167:ALA:HA	31:L4B:170:LEU:HD23	1.95	0.49
5:S5A:67:VAL:HG21	5:S5A:140:ARG:HA	1.95	0.49
2:S2B:88:ALA:O	2:S2B:226:ARG:NH1	2.46	0.49
28:5SB:111:C:H5'	28:5SB:112:G:H5'	1.95	0.49
29:L2B:65:ILE:HD11	29:L2B:67:PHE:CZ	2.48	0.49
31:L4B:24:LEU:HD21	31:L4B:114:VAL:HG12	1.95	0.49
31:L4B:185:ASP:OD1	31:L4B:188:ARG:NH1	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S4A:9:CYS:HB3	4:S4A:32:ALA:HB3	1.94	0.49
4:S4A:58:LEU:O	4:S4A:62:GLN:HG2	2.13	0.49
8:S8A:121:ASP:HB2	8:S8A:125:ARG:NH2	2.28	0.49
29:L2A:95:LEU:CD1	29:L2A:97:TYR:CE2	2.95	0.49
29:L2A:125:ILE:HD12	29:L2A:137:PRO:HD3	1.95	0.49
32:L5A:170:ARG:HE	32:L5A:174:GLU:CG	2.25	0.49
33:L6A:45:VAL:HG23	33:L6A:50:VAL:HG12	1.95	0.49
2:S2B:145:LEU:O	2:S2B:149:LEU:HB2	2.13	0.49
6:S6B:4:TYR:CZ	6:S6B:72:VAL:HG11	2.47	0.49
8:S8B:39:LEU:CD1	8:S8B:44:PHE:CB	2.91	0.49
31:L4B:110:LEU:HD11	31:L4B:181:LEU:HB3	1.95	0.49
31:L4B:197:ASP:N	31:L4B:197:ASP:OD1	2.45	0.49
32:L5B:6:ALA:O	32:L5B:10:LYS:N	2.25	0.49
29:L2A:72:LYS:NZ	29:L2A:99:ASP:OD2	2.45	0.49
31:L4A:11:VAL:HB	31:L4A:18:ARG:HG3	1.94	0.49
4:S4B:103:ASN:OD1	4:S4B:114:ARG:NH2	2.45	0.49
33:L6B:76:VAL:O	33:L6B:79:VAL:HG22	2.13	0.49
4:S4A:25:ARG:HG3	4:S4A:30:LYS:HG3	1.95	0.48
7:S7A:27:ILE:HA	7:S7A:30:ILE:HD12	1.95	0.48
8:S8A:39:LEU:HB3	8:S8A:45:ILE:HG12	1.94	0.48
4:S4B:165:MET:SD	4:S4B:168:ARG:NH1	2.85	0.48
5:S5B:51:VAL:O	5:S5B:55:VAL:HG23	2.13	0.48
29:L2B:17:THR:HG23	29:L2B:204:ILE:HA	1.95	0.48
32:L5B:61:ALA:HA	32:L5B:66:GLN:O	2.12	0.48
4:S4A:187:ARG:NH2	4:S4A:189:PRO:HA	2.28	0.48
9:S9A:29:ASN:OD1	9:S9A:64:THR:HA	2.14	0.48
30:L3A:97:LYS:O	30:L3A:100:GLU:HG3	2.12	0.48
29:L2B:148:GLU:HB2	29:L2B:151:LYS:HD2	1.95	0.48
32:L5B:56:ALA:HB2	32:L5B:153:ARG:HE	1.79	0.48
2:S2A:37:ASN:C	2:S2A:39:ILE:H	2.16	0.48
31:L4A:143:ALA:HB1	31:L4A:148:LEU:HB2	1.96	0.48
34:L9A:60:GLU:O	34:L9A:64:GLU:HG2	2.13	0.48
4:S4B:105:VAL:HG13	4:S4B:110:PHE:HB2	1.94	0.48
7:S7B:26:PHE:CE2	7:S7B:30:ILE:HD11	2.48	0.48
29:L2B:132:PRO:HD3	29:L2B:190:TYR:CE2	2.48	0.48
29:L2B:242:ARG:HD2	29:L2B:242:ARG:N	2.27	0.48
33:L6B:18:GLU:O	33:L6B:24:VAL:HG23	2.12	0.48
2:S2A:158:LEU:HD12	2:S2A:158:LEU:O	2.13	0.48
7:S7A:13:GLN:O	7:S7A:24:THR:HG21	2.14	0.48
9:S9A:48:GLU:N	9:S9A:49:PRO:HD2	2.28	0.48
31:L4A:168:ARG:HG3	31:L4A:175:THR:HG21	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S2B:52:GLU:HB3	2:S2B:56:ARG:HH21	1.78	0.48
31:L4B:101:LEU:O	31:L4B:106:ARG:NH1	2.45	0.48
2:S2A:44:LEU:O	2:S2A:47:THR:HB	2.14	0.48
2:S2A:219:VAL:O	2:S2A:223:ILE:HG13	2.12	0.48
32:L5A:131:TYR:HB3	32:L5A:159:VAL:HG22	1.93	0.48
2:S2B:27:LYS:HB2	2:S2B:193:ASP:HB2	1.95	0.48
3:S3B:44:GLU:HA	3:S3B:52:LEU:HD21	1.94	0.48
2:S2A:132:LYS:HA	2:S2A:135:GLN:HB2	1.96	0.48
4:S4A:65:ARG:HG2	4:S4A:75:PHE:CE2	2.48	0.48
6:S6A:20:ALA:HA	6:S6A:23:LYS:HB2	1.94	0.48
6:S6A:86:ARG:O	6:S6A:87:ARG:HG2	2.13	0.48
31:L4A:24:LEU:HD21	31:L4A:114:VAL:HG12	1.95	0.48
33:L6A:20:ALA:HB3	33:L6A:23:ARG:HG3	1.94	0.48
33:L6A:88:LEU:N	33:L6A:88:LEU:CD1	2.76	0.48
2:S2B:60:ASP:HA	2:S2B:63:MET:HE2	1.96	0.48
9:S9B:45:ALA:HA	9:S9B:51:ARG:HH12	1.77	0.48
30:L3B:11:MET:CG	30:L3B:24:THR:HG22	2.41	0.48
34:L9A:69:LYS:HG2	34:L9A:136:VAL:HG21	1.94	0.48
2:S2B:82:ARG:O	2:S2B:86:GLU:HG3	2.13	0.48
5:S5B:76:ILE:HD13	5:S5B:118:ILE:HD13	1.94	0.48
30:L3B:77:ILE:HD11	30:L3B:79:ARG:NH2	2.29	0.48
2:S2A:47:THR:O	2:S2A:51:LEU:HG	2.14	0.48
2:S2B:12:GLU:HG2	2:S2B:12:GLU:O	2.14	0.48
9:S9B:28:VAL:HG11	9:S9B:65:VAL:HG12	1.95	0.48
29:L2B:210:GLY:O	29:L2B:213:ARG:N	2.47	0.48
30:L3B:2:LYS:NZ	30:L3B:95:ILE:O	2.36	0.48
34:L9B:71:ILE:HG23	34:L9B:72:LEU:HG	1.95	0.48
34:L9B:127:VAL:HA	34:L9B:138:ILE:O	2.13	0.48
4:S4A:31:CYS:SG	4:S4A:33:MET:HB2	2.54	0.48
31:L4A:24:LEU:HD23	31:L4A:115:ALA:HA	1.95	0.48
32:L5A:106:LEU:HD12	32:L5A:110:ALA:HB3	1.95	0.48
2:S2B:154:LEU:O	2:S2B:155:LEU:HD22	2.14	0.48
2:S2B:185:ILE:HG22	2:S2B:199:TYR:HB2	1.96	0.48
3:S3B:29:TYR:HE1	3:S3B:33:LEU:HD22	1.79	0.48
29:L2B:18:VAL:HG23	29:L2B:211:ARG:NH2	2.28	0.48
34:L9B:92:VAL:HB	34:L9B:120:ILE:HB	1.95	0.48
4:S4A:196:LEU:O	4:S4A:198:VAL:N	2.43	0.47
6:S6A:43:LEU:H	6:S6A:43:LEU:HD12	1.79	0.47
6:S6A:44:GLY:HA2	6:S6A:59:TYR:CE1	2.48	0.47
32:L5A:16:ARG:HB3	32:L5A:17:PRO:HD3	1.96	0.47
6:S6B:82:ARG:HB2	6:S6B:85:VAL:HG23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L6B:35:VAL:HG11	33:L6B:71:LEU:HB3	1.95	0.47
34:L9B:143:SER:OG	34:L9B:144:VAL:N	2.47	0.47
2:S2A:71:VAL:HG23	2:S2A:164:VAL:HG13	1.96	0.47
4:S4A:33:MET:CE	4:S4A:37:PRO:HA	2.41	0.47
32:L5A:47:LYS:HD3	32:L5A:81:LYS:HB2	1.96	0.47
32:L5A:55:LYS:HE3	32:L5A:59:GLU:OE2	2.14	0.47
7:S7B:26:PHE:CD2	7:S7B:30:ILE:HD11	2.49	0.47
6:S6A:69:GLU:O	6:S6A:72:VAL:HG12	2.14	0.47
33:L6A:12:PRO:C	33:L6A:14:GLY:H	2.17	0.47
7:S7B:79:ARG:HG2	7:S7B:84:ASN:HB2	1.95	0.47
31:L4B:16:GLY:O	31:L4B:18:ARG:N	2.42	0.47
32:L5B:32:PRO:HB2	32:L5B:172:LEU:HD22	1.94	0.47
4:S4A:108:LEU:HD11	4:S4A:174:LEU:HD22	1.97	0.47
4:S4A:117:ALA:O	4:S4A:121:VAL:HG23	2.15	0.47
34:L9A:88:ILE:O	34:L9A:121:LYS:HE3	2.14	0.47
30:L3B:21:VAL:HG23	30:L3B:185:LYS:HD3	1.96	0.47
32:L5B:41:GLN:O	32:L5B:89:GLY:HA2	2.15	0.47
28:5SA:98:U:H2'	28:5SA:99:G:C8	2.49	0.47
32:L5A:34:LEU:HB2	32:L5A:172:LEU:HD21	1.97	0.47
3:S3B:6:HIS:CD2	3:S3B:7:PRO:HD2	2.50	0.47
4:S4B:99:SER:O	4:S4B:140:VAL:HG23	2.14	0.47
28:5SB:13:C:H3'	28:5SB:14:C:C5	2.50	0.47
28:5SB:82:U:H2'	28:5SB:83:G:N2	2.27	0.47
30:L3B:51:PHE:HB3	30:L3B:77:ILE:CG2	2.44	0.47
30:L3B:144:ARG:HB3	30:L3B:145:LYS:H	1.54	0.47
31:L4B:56:GLU:OE2	31:L4B:93:LYS:NZ	2.40	0.47
9:S9A:10:ARG:HD3	9:S9A:75:ASP:HB2	1.97	0.47
9:S9A:45:ALA:O	9:S9A:78:LYS:HE3	2.14	0.47
28:5SA:42:U:H1'	28:5SA:47:A:N6	2.29	0.47
33:L6A:9:ILE:HG22	33:L6A:69:ARG:NE	2.30	0.47
34:L9A:69:LYS:HE3	34:L9A:136:VAL:HG23	1.96	0.47
2:S2B:73:THR:OG1	2:S2B:170:GLU:OE2	2.20	0.47
9:S9B:4:TYR:O	9:S9B:18:PHE:HA	2.14	0.47
33:L6B:154:PRO:HA	33:L6B:161:GLY:HA3	1.96	0.47
3:S3A:119:ARG:O	3:S3A:123:GLN:HG3	2.15	0.47
7:S7A:23:VAL:HG13	7:S7A:43:PHE:HE2	1.79	0.47
31:L4A:29:ASN:H	31:L4A:112:MET:HE3	1.79	0.47
33:L6A:16:SER:O	33:L6A:26:VAL:O	2.32	0.47
33:L6A:121:ILE:HG12	33:L6A:140:LYS:HD3	1.95	0.47
2:S2B:86:GLU:C	2:S2B:88:ALA:H	2.17	0.47
2:S2B:158:LEU:H	2:S2B:158:LEU:HD12	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S2B:215:LEU:HD13	2:S2B:218:ALA:HB3	1.96	0.47
3:S3B:62:ASP:O	3:S3B:97:LYS:HB2	2.15	0.47
28:5SB:47:A:H8	28:5SB:47:A:OP1	1.98	0.47
29:L2B:183:ARG:HG3	29:L2B:184:LYS:N	2.30	0.47
30:L3B:97:LYS:N	30:L3B:100:GLU:OE2	2.47	0.47
33:L6B:7:LEU:HB3	33:L6B:65:HIS:HE1	1.78	0.47
8:S8A:97:VAL:HA	8:S8A:100:ILE:HG13	1.96	0.47
30:L3A:120:TRP:CD1	30:L3A:155:LYS:HB3	2.50	0.47
2:S2A:42:ILE:CD1	2:S2A:202:PRO:HB2	2.45	0.47
3:S3A:19:GLU:O	3:S3A:56:ASP:HA	2.15	0.47
5:S5A:52:PRO:O	5:S5A:55:VAL:HG12	2.15	0.47
8:S8A:104:ARG:O	8:S8A:107:LEU:HB2	2.15	0.47
9:S9A:48:GLU:HB2	9:S9A:78:LYS:HE2	1.97	0.47
29:L2A:111:LEU:HA	29:L2A:115:GLN:NE2	2.30	0.47
32:L5A:60:LEU:O	32:L5A:64:THR:HG23	2.15	0.47
2:S2B:143:GLU:O	2:S2B:147:LYS:HB2	2.14	0.47
29:L2B:53:PHE:CE2	29:L2B:220:HIS:ND1	2.83	0.47
31:L4B:66:PRO:O	31:L4B:67:GLN:HB3	2.14	0.47
31:L4A:178:PRO:HB3	31:L4A:198:ALA:HB1	1.96	0.47
33:L6A:169:VAL:HG22	33:L6A:171:LEU:HD11	1.97	0.47
31:L4B:6:VAL:HG21	31:L4B:119:ARG:HG3	1.97	0.47
31:L4B:123:LEU:HD12	31:L4B:124:LEU:N	2.30	0.47
32:L5B:129:GLY:HA2	32:L5B:166:ASP:HA	1.96	0.47
3:S3A:73:PRO:O	3:S3A:76:VAL:HG22	2.15	0.46
3:S3A:91:LEU:HD11	3:S3A:101:LEU:HD12	1.96	0.46
4:S4A:25:ARG:NH2	4:S4A:30:LYS:HB2	2.30	0.46
31:L4A:16:GLY:O	31:L4A:18:ARG:N	2.44	0.46
31:L4A:183:VAL:O	31:L4A:187:VAL:HG23	2.15	0.46
34:L9A:82:ARG:HE	34:L9A:145:VAL:HG22	1.79	0.46
8:S8B:39:LEU:HD12	8:S8B:44:PHE:HB2	1.96	0.46
34:L9B:79:ILE:N	34:L9B:80:PRO:HD3	2.30	0.46
2:S2A:112:VAL:HG22	2:S2A:149:LEU:HD13	1.97	0.46
2:S2B:17:PHE:CE2	2:S2B:44:LEU:HB3	2.50	0.46
8:S8B:39:LEU:CD1	8:S8B:44:PHE:HB2	2.45	0.46
31:L4B:181:LEU:HD23	31:L4B:181:LEU:HA	1.82	0.46
2:S2A:96:ARG:HD2	2:S2A:96:ARG:N	2.30	0.46
2:S2B:15:VAL:HG23	2:S2B:16:HIS:CE1	2.50	0.46
5:S5B:147:ASP:O	5:S5B:151:LEU:HD23	2.16	0.46
7:S7B:74:GLU:O	7:S7B:88:PRO:HA	2.15	0.46
9:S9B:26:VAL:HG13	9:S9B:61:ALA:HB3	1.97	0.46
30:L3B:4:ILE:HD13	30:L3B:28:ALA:HB1	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L6B:89:ILE:HG22	33:L6B:94:TYR:CD2	2.50	0.46
34:L9B:2:LYS:HA	34:L9B:20:ASP:HA	1.96	0.46
3:S3A:79:ARG:O	3:S3A:79:ARG:HG2	2.16	0.46
4:S4A:190:ASP:HB2	4:S4A:193:ASP:OD1	2.16	0.46
29:L2A:172:TYR:HB3	29:L2A:184:LYS:HB3	1.97	0.46
29:L2A:238:GLY:O	29:L2A:240:ALA:N	2.49	0.46
6:S6B:76:ALA:O	6:S6B:80:ARG:HG3	2.15	0.46
29:L2B:155:LEU:HD23	29:L2B:177:LEU:HD22	1.97	0.46
3:S3A:64:VAL:HG12	3:S3A:66:VAL:HG23	1.98	0.46
4:S4A:108:LEU:HB3	4:S4A:110:PHE:CD1	2.50	0.46
4:S4A:108:LEU:HB3	4:S4A:110:PHE:CE1	2.51	0.46
34:L9A:33:ARG:HB2	34:L9A:35:LEU:HG	1.97	0.46
3:S3B:8:ILE:HG23	3:S3B:16:ARG:HG2	1.97	0.46
9:S9B:16:ARG:HB3	9:S9B:64:THR:HG22	1.98	0.46
33:L6B:74:ASN:HA	33:L6B:77:LYS:HB3	1.97	0.46
2:S2A:98:LEU:O	2:S2A:101:MET:HB2	2.14	0.46
7:S7A:24:THR:HA	7:S7A:27:ILE:HD12	1.97	0.46
2:S2B:30:ARG:H	2:S2B:30:ARG:HG3	1.38	0.46
3:S3B:16:ARG:HH22	3:S3B:183:ASP:HA	1.79	0.46
4:S4B:145:GLU:OE2	4:S4B:182:LYS:HD2	2.16	0.46
7:S7B:3:ARG:H	7:S7B:3:ARG:HG3	1.57	0.46
29:L2B:218:ARG:HB3	29:L2B:219:PRO:HD2	1.96	0.46
32:L5B:111:LEU:HB2	32:L5B:112:PRO:HD3	1.96	0.46
2:S2A:113:HIS:O	2:S2A:117:GLU:HG3	2.16	0.46
34:L9A:135:GLU:H	34:L9A:135:GLU:CD	2.19	0.46
3:S3B:180:ALA:HB1	3:S3B:182:ILE:HG13	1.98	0.46
8:S8B:1:MET:SD	8:S8B:1:MET:N	2.88	0.46
2:S2A:168:THR:HG22	2:S2A:192:SER:CB	2.20	0.46
4:S4A:64:LEU:HD22	4:S4A:198:VAL:HG11	1.96	0.46
32:L5A:96:ARG:O	32:L5A:98:ARG:N	2.46	0.46
32:L5A:102:PHE:HA	32:L5A:105:LYS:HE2	1.98	0.46
3:S3B:129:ALA:HB3	3:S3B:132:ARG:HB3	1.96	0.46
3:S3B:182:ILE:HA	3:S3B:202:ILE:O	2.16	0.46
4:S4B:17:VAL:O	4:S4B:19:LEU:HD13	2.15	0.46
6:S6B:3:ARG:HB3	6:S6B:3:ARG:CZ	2.44	0.46
29:L2B:18:VAL:HA	29:L2B:211:ARG:HH22	1.80	0.46
31:L4B:63:LYS:NZ	31:L4B:67:GLN:HB2	2.31	0.46
6:S6A:3:ARG:HD3	6:S6A:38:GLU:OE1	2.16	0.46
7:S7B:65:ALA:HA	7:S7B:128:ALA:HA	1.98	0.46
29:L2A:93:ALA:HB3	29:L2A:105:ILE:HG22	1.96	0.46
29:L2A:112:GLN:H	29:L2A:115:GLN:NE2	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:L2A:130:ALA:HA	29:L2A:192:THR:HA	1.97	0.46
29:L2A:218:ARG:HB3	29:L2A:219:PRO:HD2	1.97	0.46
33:L6A:87:LEU:CD1	33:L6A:131:VAL:CG1	2.72	0.46
2:S2B:55:PHE:HA	2:S2B:58:ILE:HG12	1.98	0.46
5:S5B:70:PRO:HB3	5:S5B:144:THR:CG2	2.46	0.46
7:S7B:100:ALA:O	7:S7B:104:LEU:HD23	2.16	0.46
32:L5B:60:LEU:O	32:L5B:64:THR:HG22	2.16	0.46
34:L9B:97:ILE:O	34:L9B:101:LEU:HD23	2.15	0.46
2:S2A:88:ALA:HB2	2:S2A:219:VAL:CG1	2.47	0.45
2:S2A:100:GLY:O	2:S2A:104:ASN:N	2.38	0.45
3:S3A:76:VAL:O	3:S3A:83:ARG:HG2	2.16	0.45
4:S4A:83:SER:HA	4:S4A:89:THR:HG23	1.98	0.45
7:S7A:111:ARG:NH1	7:S7A:113:GLU:OE2	2.48	0.45
29:L2A:77:ALA:CB	29:L2A:95:LEU:HD13	2.46	0.45
30:L3A:1:MET:HB3	30:L3A:83:ASP:O	2.15	0.45
33:L6A:9:ILE:HD13	33:L6A:9:ILE:HG21	1.66	0.45
2:S2B:73:THR:HB	2:S2B:96:ARG:N	2.30	0.45
4:S4B:153:ARG:NH1	4:S4B:181:MET:HG3	2.31	0.45
5:S5B:42:GLY:HA3	5:S5B:65:ASN:O	2.16	0.45
6:S6B:45:LEU:HG	6:S6B:59:TYR:HD1	1.80	0.45
7:S7B:76:ARG:N	7:S7B:87:VAL:O	2.46	0.45
28:5SB:60:A:H5'	28:5SB:61:A:OP2	2.15	0.45
30:L3B:122:PHE:CZ	30:L3B:155:LYS:HB2	2.51	0.45
33:L6B:91:GLY:HA3	33:L6B:94:TYR:CD2	2.51	0.45
34:L9B:29:TYR:O	34:L9B:32:PRO:HD2	2.17	0.45
32:L5A:60:LEU:HD23	32:L5A:60:LEU:HA	1.76	0.45
3:S3B:191:THR:OG1	3:S3B:194:GLY:O	2.34	0.45
5:S5B:129:ILE:H	5:S5B:129:ILE:HD12	1.81	0.45
32:L5B:103:LEU:O	32:L5B:107:LEU:HG	2.16	0.45
7:S7A:121:ALA:O	7:S7A:125:MET:HG3	2.16	0.45
7:S7A:155:ARG:HD3	7:S7A:155:ARG:N	2.30	0.45
31:L4A:8:GLN:OE1	31:L4A:8:GLN:N	2.39	0.45
33:L6A:26:VAL:HG21	33:L6A:75:ALA:CB	2.46	0.45
4:S4B:88:VAL:O	4:S4B:90:GLY:N	2.48	0.45
9:S9B:49:PRO:O	9:S9B:53:VAL:HG22	2.16	0.45
29:L2B:17:THR:HG22	29:L2B:205:VAL:HB	1.98	0.45
31:L4B:29:ASN:H	31:L4B:112:MET:CE	2.30	0.45
33:L6B:30:LYS:HB3	33:L6B:79:VAL:HA	1.97	0.45
34:L9B:1:MET:HB3	34:L9B:21:VAL:O	2.16	0.45
34:L9B:69:LYS:HG2	34:L9B:136:VAL:HB	1.98	0.45
34:L9B:77:LEU:HD12	34:L9B:104:GLN:HE22	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S2A:160:ASP:O	2:S2A:183:PRO:HD2	2.17	0.45
8:S8A:82:HIS:HE1	8:S8A:136:GLU:HG3	1.82	0.45
8:S8A:103:VAL:HG21	8:S8A:110:ALA:HB2	1.99	0.45
29:L2A:60:ARG:HD3	29:L2A:86:PRO:CB	2.32	0.45
30:L3A:50:GLY:HA3	30:L3A:75:VAL:HG21	1.99	0.45
2:S2B:187:LEU:HD11	2:S2B:204:ASN:H	1.82	0.45
34:L9B:76:THR:HG22	34:L9B:139:GLN:OE1	2.16	0.45
2:S2A:108:ILE:O	2:S2A:112:VAL:HG23	2.16	0.45
4:S4A:111:ALA:HB2	4:S4A:120:LEU:CD1	2.47	0.45
8:S8A:44:PHE:CD1	8:S8A:80:ILE:HG12	2.51	0.45
29:L2A:17:THR:HG22	29:L2A:204:ILE:HA	1.98	0.45
33:L6A:105:LEU:HD23	33:L6A:105:LEU:H	1.82	0.45
4:S4B:110:PHE:N	4:S4B:110:PHE:CD1	2.85	0.45
6:S6B:45:LEU:H	6:S6B:45:LEU:HD12	1.82	0.45
8:S8B:20:TYR:HA	8:S8B:65:TYR:CE2	2.51	0.45
29:L2B:175:LEU:HD23	29:L2B:175:LEU:HA	1.78	0.45
33:L6B:72:ILE:O	33:L6B:76:VAL:HG23	2.16	0.45
4:S4A:13:ARG:HA	4:S4A:33:MET:HE3	1.97	0.45
7:S7A:99:LEU:HD22	7:S7A:103:TRP:CZ2	2.52	0.45
31:L4A:174:VAL:HG22	31:L4A:189:THR:HG21	1.98	0.45
3:S3B:120:VAL:HA	3:S3B:123:GLN:HB2	1.98	0.45
31:L4B:152:GLU:HA	31:L4B:190:GLU:OE2	2.16	0.45
4:S4A:93:PHE:O	4:S4A:96:LEU:HB2	2.17	0.45
4:S4A:111:ALA:HB2	4:S4A:120:LEU:HD11	1.99	0.45
34:L9A:48:GLU:O	34:L9A:52:ARG:HG2	2.16	0.45
2:S2B:205:ASP:OD1	2:S2B:206:ASP:N	2.50	0.45
4:S4B:129:ASN:OD1	4:S4B:145:GLU:N	2.36	0.45
5:S5B:41:VAL:HG13	5:S5B:113:ALA:HA	1.97	0.45
28:5SB:45:C:P	32:L5B:67:LYS:HE2	2.56	0.45
30:L3B:171:GLU:OE1	30:L3B:185:LYS:HE3	2.16	0.45
31:L4B:162:LEU:H	31:L4B:162:LEU:HD12	1.82	0.45
33:L6B:21:PRO:HD2	33:L6B:23:ARG:HH12	1.81	0.45
2:S2A:132:LYS:HG2	2:S2A:135:GLN:OE1	2.17	0.45
6:S6A:54:LYS:HE2	6:S6A:54:LYS:HB3	1.49	0.45
29:L2A:183:ARG:HH12	29:L2A:266:SER:HB2	1.81	0.45
2:S2B:82:ARG:HB2	2:S2B:94:ASN:HD22	1.82	0.45
28:5SB:44:C:H4'	32:L5B:67:LYS:HG2	1.99	0.45
33:L6B:91:GLY:HA3	33:L6B:94:TYR:CG	2.51	0.45
2:S2A:36:ARG:HD3	2:S2A:36:ARG:HA	1.76	0.45
2:S2A:91:PRO:HG3	2:S2A:155:LEU:HG	1.98	0.45
9:S9A:10:ARG:NH2	9:S9A:11:LYS:HE3	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:5SA:33:C:C2	28:5SA:34:C:C5	3.05	0.45
32:L5A:16:ARG:NH1	32:L5A:31:VAL:HG11	2.32	0.45
33:L6A:121:ILE:HD13	33:L6A:121:ILE:HA	1.80	0.45
4:S4B:92:VAL:O	4:S4B:96:LEU:HD13	2.17	0.45
28:5SB:97:C:H2'	28:5SB:98:U:C6	2.51	0.45
29:L2B:3:VAL:HG21	29:L2B:203:ASN:HB2	1.99	0.45
29:L2B:9:TYR:CD1	29:L2B:10:THR:HG23	2.52	0.45
8:S8A:87:SER:HB2	8:S8A:93:VAL:HB	1.99	0.45
28:5SA:42:U:H3'	28:5SA:43:U:H5"	1.99	0.45
30:L3A:111:ARG:HG3	30:L3A:160:TYR:HD2	1.81	0.45
2:S2B:83:MET:CE	2:S2B:84:GLU:HG2	2.47	0.45
2:S2B:166:ASP:C	2:S2B:168:THR:H	2.20	0.45
34:L9B:78:THR:HB	34:L9B:80:PRO:HD3	1.99	0.45
2:S2A:8:LYS:HD3	2:S2A:10:LEU:HB2	1.99	0.44
3:S3A:34:LEU:O	3:S3A:38:ARG:HG3	2.16	0.44
9:S9A:50:LEU:HD22	9:S9A:55:ALA:HB3	1.98	0.44
30:L3A:15:PHE:CE1	30:L3A:20:ALA:HB2	2.52	0.44
33:L6A:154:PRO:HD3	33:L6A:162:ILE:O	2.17	0.44
2:S2B:188:ALA:O	2:S2B:203:GLY:N	2.50	0.44
5:S5B:76:ILE:HG23	5:S5B:77:PRO:HD2	1.99	0.44
4:S4A:150:GLU:C	4:S4A:152:SER:N	2.71	0.44
8:S8A:20:TYR:HA	8:S8A:65:TYR:CE2	2.52	0.44
8:S8A:25:ASP:HA	8:S8A:59:LEU:O	2.17	0.44
30:L3A:109:LYS:HG3	30:L3A:111:ARG:CZ	2.46	0.44
34:L9A:38:LEU:CD1	34:L9A:40:THR:OG1	2.65	0.44
34:L9A:92:VAL:HG13	34:L9A:120:ILE:CG2	2.46	0.44
3:S3B:119:ARG:NH2	3:S3B:140:ARG:HG3	2.29	0.44
3:S3B:156:ARG:HD2	3:S3B:193:TYR:CD1	2.52	0.44
28:5SB:35:G:H5'	32:L5B:2:PRO:HD3	2.00	0.44
33:L6B:149:ARG:HD2	33:L6B:164:TYR:HE1	1.83	0.44
34:L9B:130:TYR:HB3	34:L9B:136:VAL:CG1	2.48	0.44
4:S4A:8:VAL:HG21	4:S4A:115:ARG:CZ	2.46	0.44
28:5SA:47:A:OP1	32:L5A:96:ARG:NH1	2.50	0.44
3:S3B:56:ASP:O	3:S3B:66:VAL:HA	2.16	0.44
9:S9B:24:GLY:CA	9:S9B:60:ASP:OD1	2.64	0.44
34:L9B:130:TYR:HB3	34:L9B:136:VAL:HG13	1.99	0.44
3:S3A:108:ASN:OD1	3:S3A:110:ASN:HB2	2.18	0.44
4:S4A:8:VAL:HG21	4:S4A:115:ARG:NH2	2.33	0.44
28:5SA:17:A:H1'	28:5SA:112:G:N9	2.32	0.44
31:L4A:119:ARG:HG2	31:L4A:119:ARG:O	2.16	0.44
33:L6A:55:PRO:HD2	33:L6A:61:HIS:ND1	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L9A:73:GLU:CD	34:L9A:137:PRO:HD2	2.37	0.44
7:S7B:13:GLN:HG2	7:S7B:14:PRO:HD2	1.98	0.44
8:S8B:38:ILE:HD11	8:S8B:118:VAL:O	2.17	0.44
28:5SB:16:U:O2'	28:5SB:17:A:OP1	2.35	0.44
30:L3B:101:ARG:NH1	30:L3B:171:GLU:HB2	2.32	0.44
2:S2A:54:THR:O	2:S2A:58:ILE:HG13	2.18	0.44
4:S4A:166:LYS:HD2	29:L2B:188:GLU:OE2	2.16	0.44
9:S9A:43:ALA:HA	9:S9A:74:ILE:HD13	1.98	0.44
7:S7B:15:ASP:HB3	7:S7B:20:ASP:H	1.82	0.44
2:S2A:16:HIS:CD2	2:S2A:209:ARG:HB2	2.53	0.44
2:S2A:21:ARG:HE	2:S2A:21:ARG:HB3	1.54	0.44
4:S4A:85:LYS:O	59:S4A:301:OHX:N6	2.48	0.44
28:5SA:73:C:C2	28:5SA:74:G:C8	3.06	0.44
29:L2A:78:LYS:HB2	29:L2A:78:LYS:HE3	1.67	0.44
31:L4A:63:LYS:CE	31:L4A:67:GLN:HB3	2.47	0.44
33:L6A:86:GLU:C	33:L6A:87:LEU:HG	2.34	0.44
34:L9A:109:ILE:HA	34:L9A:130:TYR:OH	2.17	0.44
2:S2B:82:ARG:HG3	2:S2B:92:TYR:OH	2.18	0.44
2:S2B:187:LEU:HD22	2:S2B:201:ILE:O	2.18	0.44
3:S3B:70:VAL:O	3:S3B:106:VAL:N	2.36	0.44
8:S8B:20:TYR:HA	8:S8B:65:TYR:CZ	2.53	0.44
30:L3B:119:ARG:CD	30:L3B:160:TYR:HB2	2.47	0.44
33:L6B:121:ILE:HD13	33:L6B:121:ILE:HA	1.90	0.44
7:S7A:16:LEU:HD11	9:S9A:45:ALA:HB2	1.99	0.44
28:5SA:82:U:C2	28:5SA:83:G:N2	2.86	0.44
33:L6A:68:THR:O	33:L6A:72:ILE:HG12	2.17	0.44
34:L9A:21:VAL:HG22	34:L9A:22:LYS:H	1.82	0.44
2:S2B:7:VAL:HG13	2:S2B:8:LYS:N	2.33	0.44
2:S2B:112:VAL:O	2:S2B:115:LEU:HB3	2.17	0.44
28:5SB:6:C:H2'	28:5SB:7:C:O4'	2.17	0.44
29:L2B:17:THR:CG2	29:L2B:205:VAL:H	2.30	0.44
2:S2A:55:PHE:HD1	2:S2A:221:LEU:HG	1.82	0.44
4:S4A:170:VAL:HG13	4:S4A:174:LEU:HB2	1.99	0.44
9:S9A:18:PHE:HD2	9:S9A:62:TYR:HD2	1.65	0.44
5:S5B:71:LEU:HD23	5:S5B:71:LEU:HA	1.81	0.44
7:S7B:111:ARG:HD2	7:S7B:123:GLU:OE1	2.18	0.44
29:L2B:79:VAL:HG12	29:L2B:113:VAL:HA	1.99	0.44
32:L5B:94:LEU:HD23	32:L5B:94:LEU:H	1.83	0.44
32:L5B:173:LEU:HD23	32:L5B:173:LEU:HA	1.81	0.44
2:S2A:209:ARG:HE	2:S2A:209:ARG:HB3	1.34	0.44
4:S4A:19:LEU:HD12	4:S4A:67:ILE:CG1	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S5A:100:VAL:HG22	5:S5A:118:ILE:HG22	2.00	0.44
31:L4A:179:GLU:CD	31:L4A:179:GLU:H	2.21	0.44
4:S4B:162:LEU:HD13	4:S4B:181:MET:CE	2.47	0.44
9:S9B:42:ARG:HH11	9:S9B:71:SER:HB2	1.83	0.44
9:S9B:89:ASN:O	9:S9B:92:TYR:HB2	2.18	0.44
28:5SB:66:C:H2'	28:5SB:67:C:C6	2.53	0.44
31:L4B:61:GLY:HA2	31:L4B:77:ASP:HB3	1.99	0.44
31:L4B:183:VAL:O	31:L4B:187:VAL:HG23	2.18	0.44
2:S2A:209:ARG:O	2:S2A:213:LEU:HG	2.18	0.43
4:S4A:86:LYS:HD2	59:S4A:301:OHX:N2	2.33	0.43
4:S4A:152:SER:HA	4:S4A:155:LEU:HG	2.00	0.43
4:S4A:187:ARG:HH21	4:S4A:190:ASP:H	1.66	0.43
5:S5A:147:ASP:HA	5:S5A:150:ARG:NH1	2.33	0.43
31:L4A:198:ALA:HA	31:L4A:201:VAL:HB	1.99	0.43
33:L6A:35:VAL:HG11	33:L6A:71:LEU:HB3	1.99	0.43
34:L9A:110:ASP:H	34:L9A:130:TYR:HH	1.62	0.43
2:S2B:34:ALA:O	2:S2B:41:ILE:HB	2.18	0.43
3:S3B:92:ALA:HB2	3:S3B:99:VAL:HG22	1.98	0.43
4:S4B:70:ILE:CG1	4:S4B:74:GLN:HG3	2.48	0.43
6:S6B:68:PRO:HG2	6:S6B:71:ARG:HG3	2.00	0.43
8:S8B:11:THR:HG23	8:S8B:14:ARG:NH1	2.33	0.43
32:L5B:75:LYS:HE2	32:L5B:75:LYS:HB3	1.82	0.43
33:L6B:139:GLN:O	33:L6B:139:GLN:NE2	2.50	0.43
2:S2A:97:TRP:HH2	2:S2A:176:GLU:CD	2.22	0.43
6:S6A:30:LEU:HD11	6:S6A:63:TYR:CE2	2.52	0.43
9:S9A:8:GLY:O	9:S9A:76:ALA:HB1	2.18	0.43
30:L3A:173:VAL:N	30:L3A:183:LEU:O	2.49	0.43
32:L5A:82:LEU:HD23	32:L5A:82:LEU:HA	1.87	0.43
9:S9B:32:ASP:OD1	9:S9B:33:PHE:N	2.50	0.43
28:5SB:44:C:O4'	32:L5B:69:ALA:HB2	2.18	0.43
31:L4B:40:GLN:HE22	31:L4B:182:ASN:HB2	1.81	0.43
2:S2A:51:LEU:HA	2:S2A:54:THR:HB	1.99	0.43
7:S7A:115:ARG:O	7:S7A:119:ARG:HG3	2.18	0.43
3:S3B:36:ASP:OD1	3:S3B:57:ILE:HG21	2.17	0.43
29:L2B:61:LEU:HD12	29:L2B:61:LEU:HA	1.90	0.43
32:L5B:135:LEU:HD22	32:L5B:140:ILE:HD11	1.99	0.43
3:S3A:15:THR:O	3:S3A:15:THR:HG22	2.18	0.43
5:S5A:11:ILE:HG13	5:S5A:31:LEU:HB3	2.00	0.43
6:S6A:19:LEU:HD11	6:S6A:59:TYR:CG	2.53	0.43
34:L9A:21:VAL:HG21	34:L9A:25:TYR:CD2	2.51	0.43
28:5SB:4:C:C2	28:5SB:5:C:C5	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:L3B:171:GLU:HB3	30:L3B:185:LYS:HB3	1.99	0.43
33:L6B:156:ALA:O	33:L6B:171:LEU:HA	2.19	0.43
2:S2A:146:GLN:O	2:S2A:150:SER:HB3	2.18	0.43
6:S6A:16:GLN:H	6:S6A:16:GLN:CD	2.21	0.43
6:S6A:30:LEU:HB3	6:S6A:35:ALA:HB3	1.99	0.43
6:S6A:89:MET:HB2	6:S6A:89:MET:HE3	1.93	0.43
34:L9A:109:ILE:HG22	34:L9A:130:TYR:CZ	2.54	0.43
2:S2B:179:LYS:HE3	2:S2B:179:LYS:HB2	1.83	0.43
3:S3B:19:GLU:HA	3:S3B:54:ARG:NH1	2.33	0.43
4:S4B:190:ASP:O	4:S4B:194:LEU:HD22	2.19	0.43
28:5SB:119:G:H2'	28:5SB:120:G:O4'	2.17	0.43
34:L9B:97:ILE:HG22	34:L9B:101:LEU:HD23	2.00	0.43
4:S4A:17:VAL:O	4:S4A:19:LEU:HD22	2.18	0.43
4:S4A:89:THR:OG1	59:S4A:301:OHX:N1	2.51	0.43
4:S4A:105:VAL:HG21	4:S4A:126:ILE:HG13	2.00	0.43
8:S8A:6:ILE:O	8:S8A:10:LEU:HG	2.18	0.43
28:5SA:71:G:H2'	28:5SA:72:C:H6	1.84	0.43
29:L2A:70:TRP:CZ2	29:L2A:150:LYS:HD3	2.54	0.43
30:L3A:1:MET:O	30:L3A:84:PHE:HB2	2.18	0.43
34:L9A:83:ALA:HB2	34:L9A:143:SER:O	2.18	0.43
2:S2B:6:THR:OG1	2:S2B:217:ARG:HG2	2.17	0.43
7:S7B:70:LYS:HG2	7:S7B:96:GLN:HB3	1.99	0.43
31:L4B:32:LEU:O	31:L4B:36:VAL:HG23	2.18	0.43
31:L4B:168:ARG:HG3	31:L4B:175:THR:HG21	2.01	0.43
32:L5B:135:LEU:HD11	32:L5B:155:MET:HG2	2.01	0.43
2:S2A:87:ARG:HD3	2:S2A:223:ILE:HD11	2.01	0.43
4:S4A:194:LEU:HD12	4:S4A:194:LEU:HA	1.66	0.43
5:S5A:82:VAL:HG21	5:S5A:138:ALA:HA	2.00	0.43
9:S9A:22:GLY:O	9:S9A:24:GLY:N	2.47	0.43
32:L5A:133:LEU:CD2	32:L5A:157:ILE:HB	2.48	0.43
34:L9A:100:ALA:O	34:L9A:104:GLN:HB3	2.19	0.43
2:S2B:43:ASP:OD1	2:S2B:44:LEU:N	2.52	0.43
2:S2B:46:LYS:HA	2:S2B:49:GLU:HG2	2.00	0.43
2:S2B:221:LEU:HD12	2:S2B:224:GLN:CG	2.49	0.43
3:S3B:35:GLU:HA	3:S3B:38:ARG:HE	1.82	0.43
3:S3A:77:ILE:HG23	3:S3A:84:ILE:HG22	2.01	0.43
4:S4A:28:SER:HB3	4:S4A:29:PRO:HD2	2.00	0.43
4:S4A:142:PRO:HA	4:S4A:185:PHE:HD1	1.84	0.43
5:S5A:83:GLU:O	5:S5A:83:GLU:HG3	2.17	0.43
28:5SA:17:A:H5'	28:5SA:18:G:H8	1.78	0.43
31:L4A:178:PRO:HB3	31:L4A:198:ALA:CB	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L6A:56:SER:OG	33:L6A:58:GLU:HG2	2.18	0.43
34:L9A:72:LEU:HD21	34:L9A:138:ILE:HD12	2.01	0.43
3:S3B:23:TYR:CG	3:S3B:24:ALA:N	2.86	0.43
7:S7B:23:VAL:O	7:S7B:27:ILE:HG13	2.19	0.43
2:S2A:16:HIS:HB3	2:S2A:210:SER:OG	2.19	0.43
8:S8A:51:VAL:HG11	8:S8A:60:ARG:HG3	2.01	0.43
9:S9A:91:ASP:OD1	9:S9A:91:ASP:N	2.49	0.43
29:L2A:70:TRP:CE2	29:L2A:150:LYS:HD3	2.53	0.43
32:L5A:6:ALA:HB3	32:L5A:104:GLU:OE1	2.18	0.43
2:S2B:73:THR:HG21	2:S2B:97:TRP:H	1.82	0.43
3:S3B:33:LEU:HA	3:S3B:36:ASP:HB2	1.99	0.43
4:S4B:172:PRO:HB2	4:S4B:187:ARG:HH22	1.84	0.43
28:5SB:13:C:H3'	28:5SB:14:C:C6	2.53	0.43
29:L2B:130:ALA:HA	29:L2B:192:THR:HA	2.00	0.43
29:L2B:146:GLU:HB2	29:L2B:189:CYS:HB3	2.01	0.43
30:L3B:40:GLU:HG3	30:L3B:41:LYS:H	1.84	0.43
33:L6B:46:GLU:HG2	33:L6B:47:GLU:H	1.83	0.43
33:L6B:137:ASP:HB3	33:L6B:140:LYS:HE3	2.00	0.43
3:S3A:175:LEU:H	3:S3A:175:LEU:HD12	1.84	0.43
32:L5A:56:ALA:HB2	32:L5A:153:ARG:CZ	2.48	0.43
33:L6A:41:MET:HB3	33:L6A:52:VAL:HG23	2.01	0.43
34:L9A:88:ILE:HG12	34:L9A:122:GLU:H	1.83	0.43
3:S3B:6:HIS:CD2	3:S3B:8:ILE:HG12	2.54	0.43
31:L4B:54:ARG:O	31:L4B:57:VAL:HG12	2.19	0.43
2:S2A:75:LYS:HA	2:S2A:78:GLN:HB2	2.00	0.42
3:S3A:39:ILE:O	3:S3A:43:LEU:HG	2.19	0.42
6:S6A:46:ARG:HB3	6:S6A:60:PHE:CE1	2.54	0.42
9:S9A:63:ILE:CG2	9:S9A:65:VAL:HG23	2.49	0.42
28:5SA:1:A:H2'	28:5SA:1:A:N3	2.34	0.42
4:S4B:63:LYS:O	4:S4B:67:ILE:HG13	2.19	0.42
32:L5B:67:LYS:H	32:L5B:67:LYS:HD2	1.78	0.42
33:L6B:60:ARG:O	33:L6B:64:LEU:HG	2.19	0.42
2:S2A:212:GLN:OE1	2:S2A:216:SER:HB2	2.18	0.42
3:S3A:83:ARG:O	3:S3A:83:ARG:HG3	2.17	0.42
4:S4A:144:ASP:O	4:S4A:146:ILE:HD12	2.20	0.42
30:L3A:14:ILE:HG13	30:L3A:21:VAL:HG13	2.00	0.42
32:L5A:33:ARG:O	32:L5A:162:THR:HG23	2.20	0.42
34:L9A:135:GLU:N	34:L9A:135:GLU:CD	2.73	0.42
3:S3B:36:ASP:HA	3:S3B:39:ILE:HD12	2.01	0.42
30:L3B:11:MET:O	30:L3B:12:THR:HG23	2.20	0.42
30:L3B:32:PRO:HA	30:L3B:90:THR:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L6B:172:LYS:H	33:L6B:173:PRO:HA	1.84	0.42
6:S6A:30:LEU:HD11	6:S6A:63:TYR:HE2	1.84	0.42
30:L3A:73:GLU:OE1	30:L3A:73:GLU:N	2.48	0.42
32:L5A:81:LYS:HD3	32:L5A:81:LYS:H	1.85	0.42
32:L5A:81:LYS:HD3	32:L5A:81:LYS:N	2.34	0.42
32:L5A:99:MET:HE3	32:L5A:99:MET:HB2	1.91	0.42
32:L5A:109:VAL:C	32:L5A:112:PRO:HD2	2.39	0.42
32:L5A:126:ASP:OD1	32:L5A:126:ASP:N	2.52	0.42
34:L9A:73:GLU:CD	34:L9A:136:VAL:HG22	2.35	0.42
2:S2B:17:PHE:HB3	2:S2B:42:ILE:HG23	2.01	0.42
2:S2B:178:ARG:HH12	2:S2B:196:LEU:C	2.21	0.42
8:S8B:100:ILE:O	8:S8B:125:ARG:NH1	2.47	0.42
9:S9B:128:ARG:HA	9:S9B:128:ARG:HD3	1.85	0.42
29:L2B:255:LYS:HA	29:L2B:255:LYS:HD2	1.77	0.42
32:L5B:13:GLU:O	32:L5B:17:PRO:HG3	2.19	0.42
32:L5B:41:GLN:N	32:L5B:90:LEU:O	2.50	0.42
3:S3A:132:ARG:O	3:S3A:136:GLN:HB3	2.19	0.42
31:L4A:46:ARG:HA	31:L4A:46:ARG:HD2	1.87	0.42
34:L9A:46:ALA:CB	34:L9A:50:ARG:HH11	2.32	0.42
2:S2B:32:ILE:HD11	2:S2B:40:HIS:NE2	2.33	0.42
3:S3B:148:GLY:HA3	3:S3B:172:ARG:O	2.19	0.42
3:S3B:154:SER:O	3:S3B:196:LEU:HB2	2.20	0.42
7:S7B:52:GLU:H	7:S7B:52:GLU:HG2	1.65	0.42
29:L2B:182:LEU:H	29:L2B:272:ALA:CB	2.18	0.42
29:L2B:182:LEU:HB3	29:L2B:271:ILE:HG13	2.00	0.42
4:S4A:149:ALA:O	4:S4A:153:ARG:HG2	2.19	0.42
5:S5A:99:GLY:O	5:S5A:117:ASP:HA	2.19	0.42
8:S8A:20:TYR:HD1	8:S8A:65:TYR:CD2	2.38	0.42
28:5SA:15:A:O2'	28:5SA:17:A:O5'	2.36	0.42
30:L3A:105:THR:OG1	30:L3A:199:ARG:NH2	2.52	0.42
34:L9A:101:LEU:HD12	34:L9A:105:HIS:HB2	2.02	0.42
2:S2B:95:GLN:HG2	2:S2B:148:TYR:CE1	2.54	0.42
3:S3B:82:GLU:H	3:S3B:85:ARG:NH1	2.18	0.42
3:S3B:166:GLU:HG3	3:S3B:167:TRP:H	1.84	0.42
4:S4B:156:GLU:O	4:S4B:160:GLN:HG3	2.19	0.42
8:S8B:100:ILE:HD12	8:S8B:125:ARG:HG3	2.00	0.42
8:S8B:121:ASP:OD1	8:S8B:121:ASP:N	2.52	0.42
33:L6B:87:LEU:N	33:L6B:131:VAL:O	2.47	0.42
6:S6A:1:MET:HG2	6:S6A:68:PRO:HA	2.02	0.42
7:S7A:155:ARG:HD3	7:S7A:155:ARG:H	1.85	0.42
9:S9A:83:ARG:HA	9:S9A:86:VAL:CG1	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:L4A:123:LEU:HD13	31:L4A:192:LEU:HB3	2.02	0.42
32:L5A:118:ARG:HA	32:L5A:118:ARG:HE	1.84	0.42
34:L9A:25:TYR:CE1	34:L9A:29:TYR:HD2	2.38	0.42
4:S4B:108:LEU:HD23	4:S4B:110:PHE:CZ	2.54	0.42
31:L4B:102:PRO:HB2	31:L4B:105:VAL:HG23	2.01	0.42
2:S2A:37:ASN:O	2:S2A:39:ILE:N	2.47	0.42
8:S8A:49:GLU:HG2	8:S8A:62:TYR:CE2	2.50	0.42
9:S9A:5:TYR:HA	9:S9A:17:VAL:O	2.20	0.42
2:S2B:73:THR:HG21	2:S2B:97:TRP:N	2.35	0.42
2:S2B:91:PRO:HA	2:S2B:154:LEU:HD12	2.02	0.42
7:S7B:15:ASP:OD1	7:S7B:16:LEU:N	2.48	0.42
30:L3B:61:ARG:HB2	30:L3B:62:PRO:HD3	2.01	0.42
31:L4B:117:ARG:HA	31:L4B:117:ARG:HD3	1.69	0.42
32:L5B:106:LEU:HA	32:L5B:110:ALA:HB3	2.01	0.42
34:L9B:110:ASP:N	34:L9B:130:TYR:OH	2.30	0.42
3:S3A:20:SER:HB2	3:S3A:57:ILE:HB	2.01	0.42
6:S6A:39:LYS:HB2	6:S6A:64:GLN:HB3	2.02	0.42
29:L2A:46:GLN:H	29:L2A:46:GLN:HG3	1.63	0.42
33:L6A:40:GLU:H	33:L6A:40:GLU:HG3	1.45	0.42
8:S8B:89:PRO:HA	8:S8B:92:ARG:HH11	1.85	0.42
9:S9B:19:LEU:HD23	9:S9B:19:LEU:N	2.34	0.42
28:5SB:114:U:H2'	28:5SB:115:G:H5"	2.02	0.42
30:L3B:171:GLU:O	30:L3B:184:VAL:HA	2.19	0.42
30:L3B:181:LEU:HA	30:L3B:181:LEU:HD12	1.68	0.42
32:L5B:95:ARG:HE	32:L5B:95:ARG:HB3	1.68	0.42
33:L6B:164:TYR:HB2	33:L6B:167:GLU:HG3	2.02	0.42
34:L9B:111:PRO:C	34:L9B:113:ARG:H	2.22	0.42
2:S2B:44:LEU:HD12	2:S2B:45:GLN:N	2.34	0.42
2:S2B:114:ARG:O	2:S2B:118:LEU:HG	2.20	0.42
6:S6B:15:ASP:HB2	6:S6B:18:GLN:HB2	2.02	0.42
2:S2A:97:TRP:HZ2	2:S2A:102:LEU:HD13	1.85	0.42
2:S2A:195:ASP:O	8:S8A:68:ARG:NH2	2.53	0.42
3:S3A:157:ILE:HG21	3:S3A:164:ARG:HH21	1.85	0.42
34:L9A:78:THR:HG22	34:L9A:141:LYS:HB2	2.01	0.42
2:S2B:91:PRO:HG3	2:S2B:154:LEU:HB2	2.02	0.42
2:S2B:221:LEU:HD12	2:S2B:224:GLN:NE2	2.34	0.42
9:S9B:96:LEU:O	9:S9B:100:GLY:N	2.52	0.42
29:L2B:231:HIS:CD2	29:L2B:249:PRO:HG3	2.55	0.42
32:L5B:133:LEU:HD11	32:L5B:157:ILE:HD12	2.01	0.42
2:S2A:170:GLU:O	2:S2A:174:VAL:HG23	2.20	0.41
8:S8A:16:ALA:HB2	8:S8A:24:THR:HG21	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S8A:104:ARG:HB2	8:S8A:108:GLY:H	1.84	0.41
28:5SA:3:U:H2'	28:5SA:4:C:C6	2.55	0.41
29:L2A:60:ARG:HD2	29:L2A:87:ASN:ND2	2.35	0.41
32:L5A:97:ASP:HA	32:L5A:100:TRP:HB2	2.02	0.41
32:L5A:99:MET:HG3	32:L5A:100:TRP:N	2.35	0.41
33:L6A:158:HIS:C	33:L6A:160:LYS:H	2.24	0.41
3:S3B:33:LEU:HD12	3:S3B:36:ASP:HB3	2.02	0.41
4:S4B:15:GLU:HG2	4:S4B:63:LYS:HG3	2.02	0.41
6:S6B:78:GLU:HA	6:S6B:81:ILE:HD11	2.02	0.41
30:L3B:64:LYS:HB2	30:L3B:64:LYS:HE2	1.94	0.41
31:L4B:20:LEU:HD12	31:L4B:20:LEU:HA	1.92	0.41
5:S5A:127:ASN:HA	5:S5A:128:PRO:HD3	1.95	0.41
9:S9A:92:TYR:HD1	9:S9A:92:TYR:HA	1.73	0.41
32:L5A:135:LEU:O	32:L5A:154:GLY:HA3	2.20	0.41
32:L5A:176:LEU:HD23	32:L5A:176:LEU:HA	1.86	0.41
2:S2B:10:LEU:HD22	2:S2B:10:LEU:H	1.86	0.41
2:S2B:178:ARG:NH2	8:S8B:68:ARG:NH2	2.68	0.41
29:L2B:60:ARG:HD3	29:L2B:87:ASN:ND2	2.34	0.41
29:L2B:181:GLU:HA	29:L2B:272:ALA:HB3	2.03	0.41
31:L4A:65:TRP:HZ3	31:L4A:73:ALA:C	2.23	0.41
33:L6A:12:PRO:HG2	33:L6A:15:VAL:HG22	2.03	0.41
2:S2B:15:VAL:HG23	2:S2B:16:HIS:ND1	2.35	0.41
3:S3B:19:GLU:HG2	3:S3B:55:VAL:O	2.21	0.41
4:S4B:70:ILE:HG13	4:S4B:74:GLN:HG3	2.02	0.41
5:S5B:78:HIS:CE1	5:S5B:143:ARG:H	2.39	0.41
8:S8B:4:ASP:HB3	8:S8B:7:ALA:HB3	2.03	0.41
30:L3B:101:ARG:CZ	30:L3B:171:GLU:HB2	2.51	0.41
32:L5B:33:ARG:NH2	32:L5B:162:THR:HG21	2.36	0.41
8:S8A:87:SER:HA	8:S8A:93:VAL:HG23	2.03	0.41
30:L3A:188:VAL:HG13	30:L3A:189:PRO:HD2	2.02	0.41
31:L4A:167:ALA:HA	31:L4A:170:LEU:HD23	2.03	0.41
31:L4A:181:LEU:HD23	31:L4A:181:LEU:HA	1.89	0.41
33:L6A:27:LYS:HA	33:L6A:32:GLU:HB3	2.03	0.41
33:L6A:125:VAL:HG22	33:L6A:131:VAL:HG23	2.01	0.41
2:S2B:111:ARG:HD3	2:S2B:111:ARG:HA	1.73	0.41
9:S9B:53:VAL:HG13	9:S9B:95:LYS:HD3	2.02	0.41
29:L2B:68:LYS:HD2	29:L2B:70:TRP:CZ2	2.55	0.41
31:L4B:129:PHE:C	31:L4B:131:GLY:H	2.21	0.41
33:L6B:5:GLY:O	33:L6B:8:PRO:HG3	2.21	0.41
30:L3A:3:GLY:HA3	30:L3A:81:ILE:HD13	2.03	0.41
30:L3A:111:ARG:HG2	30:L3A:160:TYR:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:L4A:132:VAL:HG12	31:L4A:163:VAL:HG22	2.03	0.41
2:S2B:118:LEU:HB2	2:S2B:142:LEU:HD12	2.01	0.41
2:S2B:239:VAL:HG12	2:S2B:240:GLN:HG3	2.02	0.41
4:S4B:74:GLN:H	4:S4B:74:GLN:HG2	1.50	0.41
4:S4B:121:VAL:HG12	4:S4B:134:ASP:HA	2.02	0.41
6:S6B:11:ASN:O	6:S6B:14:LEU:HD12	2.20	0.41
28:5SB:3:U:H2'	28:5SB:4:C:C6	2.56	0.41
33:L6B:172:LYS:N	33:L6B:173:PRO:HA	2.35	0.41
2:S2A:101:MET:HA	2:S2A:108:ILE:HG13	2.02	0.41
8:S8A:98:LYS:HE2	8:S8A:98:LYS:HB2	1.98	0.41
29:L2A:79:VAL:HG12	29:L2A:113:VAL:HA	2.03	0.41
32:L5A:34:LEU:HD11	32:L5A:103:LEU:CD1	2.51	0.41
33:L6A:88:LEU:CD1	33:L6A:88:LEU:H	2.34	0.41
34:L9A:40:THR:O	34:L9A:44:LEU:HB2	2.20	0.41
4:S4B:108:LEU:HD21	4:S4B:183:GLY:HA3	2.03	0.41
8:S8B:122:ARG:HB2	8:S8B:122:ARG:CZ	2.51	0.41
28:5SB:28:A:H2'	28:5SB:29:C:C6	2.55	0.41
29:L2B:11:PRO:O	29:L2B:12:SER:OG	2.22	0.41
29:L2B:33:LEU:HA	29:L2B:33:LEU:HD23	1.87	0.41
3:S3A:33:LEU:O	3:S3A:37:GLN:HG2	2.21	0.41
4:S4A:89:THR:OG1	59:S4A:301:OHX:N4	2.54	0.41
5:S5A:12:LEU:HD22	5:S5A:13:ILE:N	2.36	0.41
7:S7A:46:ALA:O	7:S7A:50:ILE:HG12	2.21	0.41
9:S9A:17:VAL:HG11	9:S9A:81:ILE:HA	2.03	0.41
32:L5A:164:GLU:H	32:L5A:164:GLU:HG2	1.53	0.41
2:S2B:233:SER:HB2	2:S2B:234:PRO:HD2	2.03	0.41
4:S4B:76:ARG:HD3	4:S4B:207:TYR:CE1	2.55	0.41
5:S5B:12:LEU:O	5:S5B:30:ALA:HA	2.20	0.41
6:S6B:8:ILE:HG21	6:S6B:26:ILE:CD1	2.50	0.41
30:L3B:97:LYS:O	30:L3B:100:GLU:HG3	2.21	0.41
33:L6B:144:VAL:O	33:L6B:147:ASN:HB2	2.20	0.41
2:S2A:87:ARG:NH1	2:S2A:216:SER:O	2.53	0.41
4:S4A:89:THR:OG1	59:S4A:301:OHX:N6	2.54	0.41
31:L4A:68:LYS:C	31:L4A:70:THR:H	2.24	0.41
2:S2B:69:LEU:HG	2:S2B:91:PRO:HB2	2.01	0.41
4:S4B:63:LYS:HE3	4:S4B:63:LYS:HB2	1.88	0.41
31:L4B:73:ALA:HB3	31:L4B:75:HIS:CE1	2.55	0.41
32:L5B:84:LYS:HE2	32:L5B:84:LYS:HB3	1.93	0.41
33:L6B:149:ARG:HD2	33:L6B:164:TYR:CE1	2.55	0.41
34:L9B:42:SER:HA	34:L9B:45:LYS:HG2	2.03	0.41
2:S2A:87:ARG:O	2:S2A:87:ARG:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S2A:176:GLU:O	2:S2A:180:LEU:HD12	2.21	0.41
2:S2A:189:ASP:OD1	2:S2A:189:ASP:N	2.43	0.41
4:S4A:162:LEU:HD11	4:S4A:181:MET:HB3	2.03	0.41
28:5SA:81:C:H2'	28:5SA:82:U:O4'	2.21	0.41
34:L9A:73:GLU:CD	34:L9A:136:VAL:HG23	2.40	0.41
2:S2B:98:LEU:HD23	2:S2B:98:LEU:HA	1.71	0.41
3:S3B:137:ALA:O	3:S3B:141:VAL:HG23	2.21	0.41
4:S4B:173:TRP:O	4:S4B:186:LEU:HB2	2.21	0.41
5:S5B:131:ILE:HD13	5:S5B:131:ILE:HA	1.90	0.41
8:S8B:25:ASP:N	8:S8B:25:ASP:OD1	2.54	0.41
8:S8B:112:LEU:HB3	8:S8B:133:LEU:HA	2.03	0.41
32:L5B:60:LEU:HD12	32:L5B:63:ILE:HD11	2.02	0.41
33:L6B:123:PHE:CE2	33:L6B:133:VAL:HG23	2.56	0.41
34:L9B:26:ALA:O	34:L9B:31:LEU:HB2	2.21	0.41
34:L9B:73:GLU:OE1	34:L9B:137:PRO:HD2	2.20	0.41
34:L9B:75:LEU:O	34:L9B:77:LEU:N	2.54	0.41
2:S2A:31:TYR:C	2:S2A:42:ILE:HG13	2.41	0.41
2:S2A:222:ILE:H	2:S2A:222:ILE:HG13	1.69	0.41
8:S8A:103:VAL:CG2	8:S8A:110:ALA:HB2	2.51	0.41
9:S9A:60:ASP:OD1	9:S9A:61:ALA:N	2.55	0.41
28:5SA:26:G:N7	28:5SA:58:G:H2'	2.36	0.41
5:S5B:79:GLU:HG3	5:S5B:93:PRO:HD2	2.02	0.41
6:S6B:8:ILE:HB	6:S6B:61:LEU:HB2	2.03	0.41
28:5SB:23:G:H2'	28:5SB:24:U:O4'	2.21	0.41
31:L4B:46:ARG:HD2	31:L4B:46:ARG:HA	1.91	0.41
31:L4B:47:GLY:HA3	31:L4B:95:ARG:O	2.21	0.41
32:L5B:11:TYR:HD2	32:L5B:12:TYR:CD1	2.39	0.41
32:L5B:77:ILE:HB	32:L5B:82:LEU:HD12	2.03	0.41
32:L5A:101:ILE:O	32:L5A:105:LYS:HG3	2.21	0.40
28:5SB:47:A:C5	28:5SB:48:A:N7	2.89	0.40
30:L3B:27:LEU:HD22	30:L3B:181:LEU:CD1	2.51	0.40
33:L6B:58:GLU:O	33:L6B:62:LYS:HG3	2.22	0.40
4:S4A:13:ARG:HA	4:S4A:33:MET:CE	2.52	0.40
31:L4A:29:ASN:HB3	31:L4A:32:LEU:HB3	2.04	0.40
31:L4A:125:LEU:HD11	31:L4A:199:TRP:CD2	2.56	0.40
33:L6A:106:THR:HG22	33:L6A:112:PRO:HB3	2.02	0.40
31:L4B:40:GLN:OE1	31:L4B:183:VAL:HG22	2.21	0.40
32:L5B:43:LEU:HD12	32:L5B:43:LEU:HA	1.83	0.40
32:L5B:80:PHE:O	32:L5B:81:LYS:C	2.58	0.40
2:S2A:77:ALA:O	2:S2A:81:VAL:HG23	2.21	0.40
3:S3A:72:LYS:O	3:S3A:76:VAL:HG13	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S4A:13:ARG:NH2	4:S4A:40:PRO:HA	2.36	0.40
7:S7A:108:ALA:O	7:S7A:111:ARG:HG3	2.21	0.40
8:S8A:9:MET:SD	8:S8A:26:VAL:HG21	2.61	0.40
28:5SA:44:C:H4'	32:L5A:67:LYS:HD2	2.04	0.40
30:L3A:14:ILE:HD12	30:L3A:15:PHE:N	2.35	0.40
2:S2B:27:LYS:HE2	2:S2B:195:ASP:OD2	2.21	0.40
3:S3B:36:ASP:OD1	3:S3B:57:ILE:HD13	2.20	0.40
5:S5B:67:VAL:HG21	5:S5B:140:ARG:HA	2.04	0.40
6:S6B:62:TRP:CH2	6:S6B:64:GLN:HB2	2.56	0.40
9:S9B:4:TYR:CD2	9:S9B:88:TYR:CD1	3.10	0.40
31:L4B:37:VAL:O	31:L4B:41:LEU:HG	2.21	0.40
4:S4A:59:ARG:NH2	4:S4A:62:GLN:HG3	2.36	0.40
9:S9A:18:PHE:HB2	9:S9A:62:TYR:O	2.22	0.40
29:L2A:112:GLN:O	29:L2A:115:GLN:HG2	2.22	0.40
33:L6A:126:PRO:O	33:L6A:127:GLU:C	2.60	0.40
28:5SB:80:A:H2'	28:5SB:81:C:O4'	2.21	0.40
30:L3B:54:GLN:HB2	30:L3B:76:ARG:HG2	2.03	0.40
31:L4B:53:THR:HG23	31:L4B:56:GLU:OE2	2.21	0.40
31:L4B:116:ASP:OD1	31:L4B:119:ARG:NH2	2.46	0.40
32:L5B:16:ARG:NH2	32:L5B:31:VAL:HB	2.36	0.40
32:L5B:131:TYR:O	32:L5B:159:VAL:HG22	2.22	0.40
33:L6B:11:VAL:HA	33:L6B:12:PRO:HD3	1.76	0.40
2:S2A:185:ILE:HA	2:S2A:199:TYR:O	2.22	0.40
3:S3A:92:ALA:HA	3:S3A:95:THR:O	2.22	0.40
7:S7A:26:PHE:CE2	7:S7A:30:ILE:HD11	2.57	0.40
32:L5A:61:ALA:HA	32:L5A:66:GLN:O	2.22	0.40
2:S2B:56:ARG:HB3	2:S2B:56:ARG:NH1	2.36	0.40
3:S3B:48:TYR:O	3:S3B:51:GLY:N	2.53	0.40
30:L3B:37:ARG:HA	30:L3B:42:ASP:OD2	2.22	0.40
30:L3B:77:ILE:HD12	30:L3B:77:ILE:HA	1.81	0.40
31:L4B:63:LYS:HZ1	31:L4B:67:GLN:HB2	1.86	0.40

All (17) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:16SA:726:U:C5	33:L6B:129:THR:N[3_555]	1.30	0.90
42:L20A:118:GLY:N	59:23SA:3304:OHX:N2[4_465]	1.35	0.85
26:TRNA:37:MIA:C12	37:L15B:2:LYS:NZ[2_464]	1.43	0.77
1:16SA:726:U:C4	33:L6B:130:ARG:N[3_555]	1.52	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:16SA:726:U:O4	33:L6B:130:ARG:CB[3_555]	1.64	0.56
26:TRNA:37:MIA:N3	27:23SB:1291:A:C2[2_464]	1.79	0.41
26:TRNA:37:MIA:N6	37:L15B:2:LYS:NZ[2_464]	1.80	0.40
1:16SA:726:U:O4	33:L6B:130:ARG:CG[3_555]	1.87	0.33
1:16SA:726:U:O4	33:L6B:130:ARG:N[3_555]	1.90	0.30
1:16SA:726:U:C6	33:L6B:129:THR:N[3_555]	2.01	0.19
1:16SA:726:U:N3	33:L6B:130:ARG:N[3_555]	2.10	0.10
1:16SA:726:U:C5	33:L6B:130:ARG:N[3_555]	2.11	0.09
42:L20A:118:GLY:CA	59:23SA:3304:OHX:N2[4_465]	2.14	0.06
1:16SA:726:U:O4	33:L6B:130:ARG:CA[3_555]	2.17	0.03
1:16SA:726:U:C5	33:L6B:129:THR:CA[3_555]	2.17	0.03
26:TRNA:37:MIA:N3	27:23SB:1291:A:N1[2_464]	2.18	0.02
27:23SA:1331:U:OP1	43:L21A:45:THR:CG2[4_565]	2.19	0.01

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	S2A	235/256 (92%)	196 (83%)	35 (15%)	4 (2%)	7 31
2	S2B	235/256 (92%)	193 (82%)	36 (15%)	6 (3%)	4 23
3	S3A	203/239 (85%)	177 (87%)	24 (12%)	2 (1%)	13 42
3	S3B	204/239 (85%)	181 (89%)	23 (11%)	0	100 100
4	S4A	206/209 (99%)	186 (90%)	20 (10%)	0	100 100
4	S4B	206/209 (99%)	189 (92%)	17 (8%)	0	100 100
5	S5A	149/162 (92%)	141 (95%)	8 (5%)	0	100 100
5	S5B	149/162 (92%)	140 (94%)	9 (6%)	0	100 100
6	S6A	99/101 (98%)	96 (97%)	3 (3%)	0	100 100
6	S6B	99/101 (98%)	93 (94%)	6 (6%)	0	100 100
7	S7A	153/156 (98%)	142 (93%)	11 (7%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
7	S7B	153/156 (98%)	141 (92%)	11 (7%)	1 (1%)	19 50
8	S8A	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	19 50
8	S8B	136/138 (99%)	126 (93%)	9 (7%)	1 (1%)	19 50
9	S9A	125/128 (98%)	108 (86%)	16 (13%)	1 (1%)	16 46
9	S9B	125/128 (98%)	109 (87%)	16 (13%)	0	100 100
10	S10A	97/105 (92%)	86 (89%)	11 (11%)	0	100 100
10	S10B	97/105 (92%)	83 (86%)	12 (12%)	2 (2%)	5 27
11	S11A	114/129 (88%)	106 (93%)	8 (7%)	0	100 100
11	S11B	115/129 (89%)	105 (91%)	10 (9%)	0	100 100
12	S12A	122/132 (92%)	106 (87%)	15 (12%)	1 (1%)	16 46
12	S12B	122/132 (92%)	108 (88%)	12 (10%)	2 (2%)	8 32
13	S13A	117/126 (93%)	97 (83%)	16 (14%)	4 (3%)	3 19
13	S13B	119/126 (94%)	95 (80%)	20 (17%)	4 (3%)	3 19
14	S14A	58/61 (95%)	50 (86%)	5 (9%)	3 (5%)	1 11
14	S14B	57/61 (93%)	47 (82%)	7 (12%)	3 (5%)	1 10
15	S15A	86/89 (97%)	81 (94%)	3 (4%)	2 (2%)	5 26
15	S15B	86/89 (97%)	82 (95%)	3 (4%)	1 (1%)	11 38
16	S16A	81/88 (92%)	78 (96%)	3 (4%)	0	100 100
16	S16B	82/88 (93%)	78 (95%)	4 (5%)	0	100 100
17	S17A	98/105 (93%)	92 (94%)	6 (6%)	0	100 100
17	S17B	98/105 (93%)	92 (94%)	6 (6%)	0	100 100
18	S18A	69/88 (78%)	62 (90%)	7 (10%)	0	100 100
18	S18B	68/88 (77%)	61 (90%)	6 (9%)	1 (2%)	8 33
19	S19A	82/93 (88%)	64 (78%)	18 (22%)	0	100 100
19	S19B	84/93 (90%)	65 (77%)	17 (20%)	2 (2%)	5 25
20	S20A	97/106 (92%)	84 (87%)	9 (9%)	4 (4%)	2 15
20	S20B	97/106 (92%)	81 (84%)	13 (13%)	3 (3%)	3 21
21	THXA	22/27 (82%)	20 (91%)	2 (9%)	0	100 100
21	THXB	23/27 (85%)	20 (87%)	2 (9%)	1 (4%)	2 14
29	L2A	270/276 (98%)	244 (90%)	22 (8%)	4 (2%)	8 33
29	L2B	270/276 (98%)	244 (90%)	23 (8%)	3 (1%)	12 40

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
30	L3A	202/206 (98%)	188 (93%)	12 (6%)	2 (1%)	13 42
30	L3B	202/206 (98%)	188 (93%)	12 (6%)	2 (1%)	13 42
31	L4A	200/210 (95%)	183 (92%)	15 (8%)	2 (1%)	13 42
31	L4B	200/210 (95%)	182 (91%)	17 (8%)	1 (0%)	25 56
32	L5A	179/182 (98%)	153 (86%)	20 (11%)	6 (3%)	3 19
32	L5B	179/182 (98%)	154 (86%)	20 (11%)	5 (3%)	4 22
33	L6A	169/180 (94%)	140 (83%)	24 (14%)	5 (3%)	3 21
33	L6B	171/180 (95%)	133 (78%)	31 (18%)	7 (4%)	2 15
34	L9A	143/148 (97%)	117 (82%)	19 (13%)	7 (5%)	2 12
34	L9B	144/148 (97%)	119 (83%)	22 (15%)	3 (2%)	5 27
35	L13A	136/140 (97%)	116 (85%)	16 (12%)	4 (3%)	3 22
35	L13B	136/140 (97%)	119 (88%)	15 (11%)	2 (2%)	8 33
36	L14A	120/122 (98%)	112 (93%)	5 (4%)	3 (2%)	4 24
36	L14B	120/122 (98%)	107 (89%)	11 (9%)	2 (2%)	7 31
37	L15A	148/150 (99%)	119 (80%)	21 (14%)	8 (5%)	1 10
37	L15B	148/150 (99%)	113 (76%)	25 (17%)	10 (7%)	1 7
38	L16A	139/141 (99%)	116 (84%)	19 (14%)	4 (3%)	3 22
38	L16B	139/141 (99%)	113 (81%)	22 (16%)	4 (3%)	3 22
39	L17A	116/118 (98%)	103 (89%)	12 (10%)	1 (1%)	14 44
39	L17B	116/118 (98%)	105 (90%)	11 (10%)	0	100 100
40	L18A	110/112 (98%)	89 (81%)	19 (17%)	2 (2%)	7 30
40	L18B	109/112 (97%)	89 (82%)	20 (18%)	0	100 100
41	L19A	135/146 (92%)	119 (88%)	15 (11%)	1 (1%)	19 50
41	L19B	135/146 (92%)	118 (87%)	17 (13%)	0	100 100
42	L20A	115/118 (98%)	107 (93%)	8 (7%)	0	100 100
42	L20B	115/118 (98%)	104 (90%)	9 (8%)	2 (2%)	7 31
43	L21A	99/101 (98%)	86 (87%)	9 (9%)	4 (4%)	2 16
43	L21B	99/101 (98%)	78 (79%)	15 (15%)	6 (6%)	1 9
44	L22A	111/113 (98%)	104 (94%)	7 (6%)	0	100 100
44	L22B	111/113 (98%)	100 (90%)	11 (10%)	0	100 100
45	L23A	91/96 (95%)	86 (94%)	5 (6%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
45	L23B	92/96 (96%)	86 (94%)	6 (6%)	0	100 100
46	L24A	106/110 (96%)	85 (80%)	15 (14%)	6 (6%)	1 9
46	L24B	104/110 (94%)	83 (80%)	15 (14%)	6 (6%)	1 9
47	L25A	177/206 (86%)	137 (77%)	33 (19%)	7 (4%)	2 16
47	L25B	174/206 (84%)	135 (78%)	35 (20%)	4 (2%)	5 26
48	L27A	82/85 (96%)	73 (89%)	9 (11%)	0	100 100
48	L27B	82/85 (96%)	70 (85%)	11 (13%)	1 (1%)	11 38
49	L28A	95/98 (97%)	84 (88%)	9 (10%)	2 (2%)	5 27
49	L28B	95/98 (97%)	81 (85%)	13 (14%)	1 (1%)	12 40
50	L29A	67/72 (93%)	61 (91%)	6 (9%)	0	100 100
50	L29B	69/72 (96%)	64 (93%)	5 (7%)	0	100 100
51	L30A	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
51	L30B	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
52	L31A	69/71 (97%)	45 (65%)	20 (29%)	4 (6%)	1 9
52	L31B	69/71 (97%)	44 (64%)	21 (30%)	4 (6%)	1 9
53	L32A	54/60 (90%)	45 (83%)	9 (17%)	0	100 100
53	L32B	54/60 (90%)	50 (93%)	3 (6%)	1 (2%)	6 29
54	L33A	43/54 (80%)	27 (63%)	12 (28%)	4 (9%)	0 3
54	L33B	43/54 (80%)	31 (72%)	8 (19%)	4 (9%)	0 3
55	L34A	46/49 (94%)	44 (96%)	2 (4%)	0	100 100
55	L34B	47/49 (96%)	44 (94%)	3 (6%)	0	100 100
56	L35A	62/65 (95%)	57 (92%)	4 (6%)	1 (2%)	8 32
56	L35B	62/65 (95%)	56 (90%)	6 (10%)	0	100 100
All	All	11387/12054 (94%)	9944 (87%)	1249 (11%)	194 (2%)	7 31

All (194) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S2A	10	LEU
3	S3A	12	LEU
12	S12A	62	GLU
13	S13A	67	GLU
13	S13A	101	GLN
29	L2A	123	ALA

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Mol	Chain	Res	Type
30	L3A	118	LYS
31	L4A	128	ALA
32	L5A	96	ARG
33	L6A	127	GLU
34	L9A	134	PRO
35	L13A	97	ARG
35	L13A	137	LYS
36	L14A	97	ARG
37	L15A	7	ARG
37	L15A	10	PRO
37	L15A	15	ARG
37	L15A	57	THR
37	L15A	106	LEU
37	L15A	148	LEU
38	L16A	105	GLU
38	L16A	139	GLU
40	L18A	3	ARG
43	L21A	38	LEU
43	L21A	50	PRO
46	L24A	81	LYS
46	L24A	90	LEU
46	L24A	92	ASN
47	L25A	109	ALA
52	L31A	37	SER
54	L33A	45	LYS
54	L33A	48	VAL
54	L33A	49	HIS
2	S2B	20	GLU
2	S2B	154	LEU
7	S7B	55	GLY
12	S12B	45	PRO
13	S13B	83	ASP
13	S13B	106	ASN
14	S14B	17	LYS
15	S15B	88	ARG
19	S19B	45	VAL
20	S20B	68	LYS
20	S20B	70	SER
20	S20B	74	LYS
21	THXB	3	LYS
29	L2B	239	ARG
31	L4B	128	ALA

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Mol	Chain	Res	Type
32	L5B	5	VAL
32	L5B	81	LYS
33	L6B	12	PRO
34	L9B	142	VAL
35	L13B	77	GLY
37	L15B	15	ARG
37	L15B	53	GLY
37	L15B	110	TYR
38	L16B	105	GLU
38	L16B	139	GLU
42	L20B	93	LYS
43	L21B	44	LYS
43	L21B	50	PRO
46	L24B	57	GLN
46	L24B	81	LYS
47	L25B	60	GLU
47	L25B	63	ASP
49	L28B	91	LYS
52	L31B	67	TYR
54	L33B	19	ARG
2	S2A	207	ALA
13	S13A	14	ARG
14	S14A	24	CYS
20	S20A	48	LYS
20	S20A	102	GLY
29	L2A	239	ARG
32	L5A	49	ASP
32	L5A	82	LEU
34	L9A	13	GLY
34	L9A	122	GLU
35	L13A	22	THR
36	L14A	49	ARG
37	L15A	29	LYS
38	L16A	90	VAL
43	L21A	46	VAL
47	L25A	59	LEU
47	L25A	63	ASP
47	L25A	111	VAL
2	S2B	87	ARG
10	S10B	54	PHE
12	S12B	62	GLU
14	S14B	14	PRO

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Mol	Chain	Res	Type
14	S14B	29	ARG
32	L5B	96	ARG
32	L5B	117	PHE
33	L6B	103	LEU
33	L6B	118	PRO
35	L13B	64	GLY
36	L14B	48	PRO
37	L15B	16	ARG
37	L15B	19	VAL
37	L15B	29	LYS
37	L15B	36	LYS
38	L16B	90	VAL
42	L20B	101	ARG
43	L21B	47	VAL
43	L21B	79	VAL
53	L32B	50	GLY
54	L33B	49	HIS
14	S14A	16	PHE
15	S15A	23	GLY
29	L2A	122	ASP
31	L4A	69	HIS
32	L5A	81	LYS
32	L5A	127	GLY
33	L6A	93	GLY
37	L15A	19	VAL
41	L19A	124	ASP
43	L21A	30	GLY
47	L25A	13	GLU
47	L25A	159	PRO
49	L28A	91	LYS
56	L35A	32	LEU
2	S2B	191	ASP
10	S10B	17	ASP
13	S13B	5	ALA
13	S13B	120	LYS
30	L3B	118	LYS
32	L5B	82	LEU
33	L6B	21	PRO
34	L9B	76	THR
36	L14B	5	GLN
37	L15B	57	THR
43	L21B	30	GLY

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Mol	Chain	Res	Type
48	L27B	3	HIS
54	L33B	17	LYS
2	S2A	5	ILE
2	S2A	155	LEU
9	S9A	56	LEU
20	S20A	95	ALA
29	L2A	240	ALA
30	L3A	52	LEU
33	L6A	87	LEU
33	L6A	92	ILE
34	L9A	11	ASN
34	L9A	118	LYS
46	L24A	54	LYS
46	L24A	91	GLU
52	L31A	40	HIS
29	L2B	240	ALA
30	L3B	52	LEU
33	L6B	108	GLY
33	L6B	127	GLU
46	L24B	76	CYS
46	L24B	96	ILE
47	L25B	13	GLU
47	L25B	61	LEU
3	S3A	82	GLU
15	S15A	87	ILE
20	S20A	97	ALA
32	L5A	86	MET
33	L6A	81	GLU
38	L16A	11	LYS
39	L17A	117	VAL
52	L31A	34	GLU
54	L33A	41	PRO
2	S2B	7	VAL
2	S2B	130	ARG
37	L15B	47	ASP
37	L15B	119	GLU
46	L24B	56	PRO
52	L31B	41	PRO
52	L31B	42	PHE
52	L31B	49	PHE
8	S8A	129	VAL
14	S14A	52	GLN

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Mol	Chain	Res	Type
34	L9A	12	LEU
34	L9A	131	LYS
36	L14A	5	GLN
40	L18A	94	TYR
46	L24A	76	CYS
49	L28A	97	LEU
52	L31A	43	TYR
8	S8B	133	LEU
19	S19B	41	VAL
33	L6B	3	ARG
38	L16B	11	LYS
43	L21B	87	HIS
13	S13A	4	ILE
29	L2B	271	ILE
46	L24B	51	VAL
47	L25A	61	LEU
54	L33B	41	PRO
35	L13A	126	PRO
18	S18B	86	VAL
34	L9B	132	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	S2A	205/220 (93%)	187 (91%)	18 (9%)	8 28
2	S2B	205/220 (93%)	198 (97%)	7 (3%)	32 59
3	S3A	159/188 (85%)	151 (95%)	8 (5%)	20 48
3	S3B	160/188 (85%)	143 (89%)	17 (11%)	5 21
4	S4A	180/181 (99%)	170 (94%)	10 (6%)	17 45
4	S4B	180/181 (99%)	172 (96%)	8 (4%)	24 52
5	S5A	116/123 (94%)	113 (97%)	3 (3%)	41 66
5	S5B	116/123 (94%)	111 (96%)	5 (4%)	25 53

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	S6A	90/90 (100%)	87 (97%)	3 (3%)	33	60
6	S6B	90/90 (100%)	88 (98%)	2 (2%)	47	69
7	S7A	126/127 (99%)	121 (96%)	5 (4%)	27	55
7	S7B	126/127 (99%)	119 (94%)	7 (6%)	17	45
8	S8A	119/119 (100%)	112 (94%)	7 (6%)	16	43
8	S8B	119/119 (100%)	112 (94%)	7 (6%)	16	43
9	S9A	98/99 (99%)	94 (96%)	4 (4%)	26	54
9	S9B	98/99 (99%)	88 (90%)	10 (10%)	6	23
10	S10A	89/92 (97%)	86 (97%)	3 (3%)	32	59
10	S10B	89/92 (97%)	82 (92%)	7 (8%)	10	32
11	S11A	88/99 (89%)	84 (96%)	4 (4%)	23	52
11	S11B	89/99 (90%)	88 (99%)	1 (1%)	70	82
12	S12A	103/108 (95%)	100 (97%)	3 (3%)	37	63
12	S12B	103/108 (95%)	96 (93%)	7 (7%)	13	38
13	S13A	95/101 (94%)	88 (93%)	7 (7%)	11	34
13	S13B	97/101 (96%)	93 (96%)	4 (4%)	26	54
14	S14A	49/50 (98%)	46 (94%)	3 (6%)	15	42
14	S14B	49/50 (98%)	48 (98%)	1 (2%)	50	71
15	S15A	79/80 (99%)	78 (99%)	1 (1%)	65	79
15	S15B	79/80 (99%)	76 (96%)	3 (4%)	28	56
16	S16A	72/74 (97%)	67 (93%)	5 (7%)	13	38
16	S16B	72/74 (97%)	70 (97%)	2 (3%)	38	64
17	S17A	95/97 (98%)	89 (94%)	6 (6%)	15	41
17	S17B	95/97 (98%)	91 (96%)	4 (4%)	25	53
18	S18A	62/77 (80%)	61 (98%)	1 (2%)	58	76
18	S18B	61/77 (79%)	60 (98%)	1 (2%)	58	76
19	S19A	73/80 (91%)	65 (89%)	8 (11%)	5	20
19	S19B	73/80 (91%)	68 (93%)	5 (7%)	13	38
20	S20A	76/82 (93%)	74 (97%)	2 (3%)	41	66
20	S20B	76/82 (93%)	73 (96%)	3 (4%)	27	55
21	THXA	19/22 (86%)	19 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
21	THXB	20/22 (91%)	19 (95%)	1 (5%)	20 48
29	L2A	214/218 (98%)	209 (98%)	5 (2%)	45 68
29	L2B	214/218 (98%)	207 (97%)	7 (3%)	33 60
30	L3A	165/166 (99%)	159 (96%)	6 (4%)	30 57
30	L3B	165/166 (99%)	161 (98%)	4 (2%)	44 68
31	L4A	161/166 (97%)	153 (95%)	8 (5%)	20 48
31	L4B	161/166 (97%)	159 (99%)	2 (1%)	67 80
32	L5A	155/156 (99%)	150 (97%)	5 (3%)	34 61
32	L5B	155/156 (99%)	144 (93%)	11 (7%)	12 37
33	L6A	143/148 (97%)	138 (96%)	5 (4%)	31 58
33	L6B	144/148 (97%)	129 (90%)	15 (10%)	5 22
34	L9A	122/124 (98%)	113 (93%)	9 (7%)	11 34
34	L9B	122/124 (98%)	114 (93%)	8 (7%)	14 40
35	L13A	117/119 (98%)	113 (97%)	4 (3%)	32 59
35	L13B	117/119 (98%)	115 (98%)	2 (2%)	56 74
36	L14A	100/100 (100%)	98 (98%)	2 (2%)	50 71
36	L14B	100/100 (100%)	93 (93%)	7 (7%)	12 37
37	L15A	116/116 (100%)	105 (90%)	11 (10%)	7 25
37	L15B	116/116 (100%)	108 (93%)	8 (7%)	13 38
38	L16A	111/111 (100%)	102 (92%)	9 (8%)	9 31
38	L16B	111/111 (100%)	103 (93%)	8 (7%)	12 36
39	L17A	101/101 (100%)	100 (99%)	1 (1%)	73 84
39	L17B	101/101 (100%)	97 (96%)	4 (4%)	27 55
40	L18A	88/88 (100%)	84 (96%)	4 (4%)	23 52
40	L18B	87/88 (99%)	78 (90%)	9 (10%)	6 22
41	L19A	120/127 (94%)	113 (94%)	7 (6%)	17 44
41	L19B	120/127 (94%)	114 (95%)	6 (5%)	20 48
42	L20A	93/94 (99%)	90 (97%)	3 (3%)	34 61
42	L20B	93/94 (99%)	85 (91%)	8 (9%)	8 30
43	L21A	82/82 (100%)	78 (95%)	4 (5%)	21 49
43	L21B	82/82 (100%)	73 (89%)	9 (11%)	5 20

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
44	L22A	92/92 (100%)	87 (95%)	5 (5%)	18 46
44	L22B	92/92 (100%)	88 (96%)	4 (4%)	25 53
45	L23A	76/78 (97%)	75 (99%)	1 (1%)	65 79
45	L23B	76/78 (97%)	73 (96%)	3 (4%)	27 55
46	L24A	89/91 (98%)	84 (94%)	5 (6%)	17 45
46	L24B	79/91 (87%)	76 (96%)	3 (4%)	28 56
47	L25A	158/179 (88%)	150 (95%)	8 (5%)	20 48
47	L25B	155/179 (87%)	145 (94%)	10 (6%)	14 40
48	L27A	66/67 (98%)	63 (96%)	3 (4%)	23 52
48	L27B	66/67 (98%)	61 (92%)	5 (8%)	11 34
49	L28A	82/83 (99%)	79 (96%)	3 (4%)	29 56
49	L28B	82/83 (99%)	80 (98%)	2 (2%)	44 68
50	L29A	65/67 (97%)	62 (95%)	3 (5%)	23 52
50	L29B	64/67 (96%)	62 (97%)	2 (3%)	35 61
51	L30A	51/52 (98%)	49 (96%)	2 (4%)	27 55
51	L30B	51/52 (98%)	50 (98%)	1 (2%)	50 71
52	L31A	63/63 (100%)	56 (89%)	7 (11%)	5 19
52	L31B	63/63 (100%)	58 (92%)	5 (8%)	10 32
53	L32A	48/52 (92%)	45 (94%)	3 (6%)	15 41
53	L32B	48/52 (92%)	43 (90%)	5 (10%)	5 22
54	L33A	44/52 (85%)	40 (91%)	4 (9%)	7 27
54	L33B	44/52 (85%)	43 (98%)	1 (2%)	45 68
55	L34A	41/42 (98%)	39 (95%)	2 (5%)	21 49
55	L34B	42/42 (100%)	39 (93%)	3 (7%)	12 37
56	L35A	54/55 (98%)	49 (91%)	5 (9%)	7 26
56	L35B	54/55 (98%)	51 (94%)	3 (6%)	17 45
All	All	9611/9996 (96%)	9119 (95%)	492 (5%)	20 48

All (492) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S2A	9	GLU
2	S2A	17	PHE

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Mol	Chain	Res	Type
2	S2A	28	PHE
2	S2A	30	ARG
2	S2A	35	GLU
2	S2A	74	LYS
2	S2A	75	LYS
2	S2A	96	ARG
2	S2A	111	ARG
2	S2A	121	LEU
2	S2A	124	SER
2	S2A	137	ARG
2	S2A	163	PHE
2	S2A	192	SER
2	S2A	196	LEU
2	S2A	209	ARG
2	S2A	210	SER
2	S2A	212	GLN
3	S3A	16	ARG
3	S3A	17	ASP
3	S3A	29	TYR
3	S3A	34	LEU
3	S3A	79	ARG
3	S3A	98	ASN
3	S3A	128	PHE
3	S3A	136	GLN
4	S4A	3	ARG
4	S4A	10	ARG
4	S4A	45	GLN
4	S4A	49	ARG
4	S4A	52	SER
4	S4A	84	LYS
4	S4A	131	ARG
4	S4A	150	GLU
4	S4A	187	ARG
4	S4A	209	ARG
5	S5A	10	MET
5	S5A	73	ASN
5	S5A	155	GLU
6	S6A	7	ASN
6	S6A	19	LEU
6	S6A	54	LYS
7	S7A	78	ARG
7	S7A	94	ARG

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Mol	Chain	Res	Type
7	S7A	114	ARG
7	S7A	137	LYS
7	S7A	155	ARG
8	S8A	1	MET
8	S8A	41	ARG
8	S8A	56	LYS
8	S8A	88	LYS
8	S8A	91	ARG
8	S8A	104	ARG
8	S8A	112	LEU
9	S9A	111	ARG
9	S9A	112	LYS
9	S9A	114	TYR
9	S9A	121	ARG
10	S10A	3	LYS
10	S10A	60	ARG
10	S10A	78	ASN
11	S11A	13	GLN
11	S11A	51	LYS
11	S11A	77	MET
11	S11A	91	ARG
12	S12A	16	ARG
12	S12A	17	LYS
12	S12A	25	LYS
13	S13A	48	LEU
13	S13A	64	TRP
13	S13A	65	LYS
13	S13A	69	GLU
13	S13A	106	ASN
13	S13A	110	ARG
13	S13A	111	LYS
14	S14A	23	ARG
14	S14A	35	ARG
14	S14A	41	ARG
15	S15A	21	ASP
16	S16A	8	ARG
16	S16A	26	ARG
16	S16A	43	LYS
16	S16A	72	ARG
16	S16A	75	ARG
17	S17A	52	LYS
17	S17A	68	ARG

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Mol	Chain	Res	Type
17	S17A	70	ARG
17	S17A	78	GLU
17	S17A	91	ARG
17	S17A	101	ARG
18	S18A	26	LEU
19	S19A	6	LYS
19	S19A	12	ASP
19	S19A	27	GLU
19	S19A	31	ILE
19	S19A	32	LYS
19	S19A	37	ARG
19	S19A	78	ARG
19	S19A	81	ARG
20	S20A	45	GLN
20	S20A	92	LEU
29	L2A	13	ARG
29	L2A	14	ARG
29	L2A	38	LYS
29	L2A	212	SER
29	L2A	273	ARG
30	L3A	13	ARG
30	L3A	64	LYS
30	L3A	111	ARG
30	L3A	113	PHE
30	L3A	152	LYS
30	L3A	154	LYS
31	L4A	13	SER
31	L4A	17	ARG
31	L4A	45	ARG
31	L4A	67	GLN
31	L4A	98	SER
31	L4A	108	LYS
31	L4A	117	ARG
31	L4A	158	THR
32	L5A	51	ARG
32	L5A	58	GLN
32	L5A	67	LYS
32	L5A	80	PHE
32	L5A	86	MET
33	L6A	77	LYS
33	L6A	86	GLU
33	L6A	104	GLU

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Mol	Chain	Res	Type
33	L6A	149	ARG
33	L6A	155	SER
34	L9A	9	LEU
34	L9A	25	TYR
34	L9A	57	ARG
34	L9A	82	ARG
34	L9A	113	ARG
34	L9A	116	LEU
34	L9A	126	TYR
34	L9A	135	GLU
34	L9A	139	GLN
35	L13A	7	LYS
35	L13A	39	ARG
35	L13A	67	LEU
35	L13A	97	ARG
36	L14A	7	TYR
36	L14A	28	SER
37	L15A	13	ASN
37	L15A	15	ARG
37	L15A	21	ARG
37	L15A	27	HIS
37	L15A	50	ARG
37	L15A	55	ARG
37	L15A	91	PHE
37	L15A	108	LYS
37	L15A	133	SER
37	L15A	144	GLU
37	L15A	148	LEU
38	L16A	10	ARG
38	L16A	14	ARG
38	L16A	25	ASP
38	L16A	26	TYR
38	L16A	45	GLN
38	L16A	58	PHE
38	L16A	59	ARG
38	L16A	89	ASN
38	L16A	101	ARG
39	L17A	105	ARG
40	L18A	15	ARG
40	L18A	58	LEU
40	L18A	61	ASN
40	L18A	89	ARG

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Mol	Chain	Res	Type
41	L19A	1	MET
41	L19A	51	ARG
41	L19A	58	ASN
41	L19A	74	ARG
41	L19A	96	ARG
41	L19A	111	ARG
41	L19A	112	ARG
42	L20A	5	LYS
42	L20A	92	ARG
42	L20A	104	GLN
43	L21A	10	LYS
43	L21A	12	TYR
43	L21A	21	ARG
43	L21A	51	VAL
44	L22A	11	ARG
44	L22A	37	ARG
44	L22A	67	ASP
44	L22A	70	TYR
44	L22A	92	ARG
45	L23A	64	LYS
46	L24A	6	HIS
46	L24A	81	LYS
46	L24A	92	ASN
46	L24A	101	LYS
46	L24A	102	CYS
47	L25A	1	MET
47	L25A	6	LYS
47	L25A	49	ARG
47	L25A	63	ASP
47	L25A	72	ARG
47	L25A	77	ASP
47	L25A	81	ARG
47	L25A	132	ASN
48	L27A	14	ARG
48	L27A	44	ARG
48	L27A	64	ASP
49	L28A	69	LYS
49	L28A	78	LYS
49	L28A	81	LYS
50	L29A	8	LYS
50	L29A	17	SER
50	L29A	28	LYS

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Mol	Chain	Res	Type
51	L30A	33	GLN
51	L30A	38	GLU
52	L31A	16	CYS
52	L31A	18	CYS
52	L31A	38	LYS
52	L31A	55	ARG
52	L31A	61	ARG
52	L31A	63	TYR
52	L31A	67	TYR
53	L32A	16	ARG
53	L32A	23	HIS
53	L32A	51	TYR
54	L33A	33	LYS
54	L33A	34	LEU
54	L33A	39	TYR
54	L33A	42	TRP
55	L34A	10	ARG
55	L34A	41	ARG
56	L35A	4	MET
56	L35A	34	TRP
56	L35A	35	GLN
56	L35A	46	ARG
56	L35A	52	LYS
2	S2B	21	ARG
2	S2B	56	ARG
2	S2B	137	ARG
2	S2B	163	PHE
2	S2B	193	ASP
2	S2B	217	ARG
2	S2B	236	TYR
3	S3B	16	ARG
3	S3B	26	LYS
3	S3B	29	TYR
3	S3B	36	ASP
3	S3B	43	LEU
3	S3B	48	TYR
3	S3B	52	LEU
3	S3B	54	ARG
3	S3B	56	ASP
3	S3B	62	ASP
3	S3B	72	LYS
3	S3B	79	ARG

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Mol	Chain	Res	Type
3	S3B	83	ARG
3	S3B	119	ARG
3	S3B	131	ARG
3	S3B	184	TYR
3	S3B	196	LEU
4	S4B	3	ARG
4	S4B	10	ARG
4	S4B	33	MET
4	S4B	49	ARG
4	S4B	118	ARG
4	S4B	162	LEU
4	S4B	181	MET
4	S4B	201	GLN
5	S5B	24	ARG
5	S5B	26	PHE
5	S5B	107	ARG
5	S5B	126	ARG
5	S5B	137	GLU
6	S6B	3	ARG
6	S6B	82	ARG
7	S7B	41	ARG
7	S7B	56	GLN
7	S7B	67	GLU
7	S7B	72	ARG
7	S7B	85	TYR
7	S7B	140	ASP
7	S7B	156	TRP
8	S8B	1	MET
8	S8B	25	ASP
8	S8B	77	GLU
8	S8B	84	ARG
8	S8B	102	ARG
8	S8B	112	LEU
8	S8B	122	ARG
9	S9B	10	ARG
9	S9B	20	ARG
9	S9B	71	SER
9	S9B	95	LYS
9	S9B	97	LYS
9	S9B	107	ARG
9	S9B	113	LYS
9	S9B	118	LYS

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Mol	Chain	Res	Type
9	S9B	121	ARG
9	S9B	125	TYR
10	S10B	21	GLN
10	S10B	22	LYS
10	S10B	45	ARG
10	S10B	59	SER
10	S10B	69	ASN
10	S10B	70	ARG
10	S10B	79	ARG
11	S11B	116	HIS
12	S12B	43	LYS
12	S12B	44	LYS
12	S12B	46	ASN
12	S12B	61	TYR
12	S12B	72	HIS
12	S12B	99	ARG
12	S12B	115	SER
13	S13B	47	ASP
13	S13B	64	TRP
13	S13B	88	ARG
13	S13B	94	ARG
14	S14B	35	ARG
15	S15B	10	LYS
15	S15B	21	ASP
15	S15B	63	ARG
16	S16B	43	LYS
16	S16B	82	GLN
17	S17B	63	ARG
17	S17B	68	ARG
17	S17B	79	SER
17	S17B	101	ARG
18	S18B	54	ARG
19	S19B	29	ARG
19	S19B	32	LYS
19	S19B	64	GLU
19	S19B	80	TYR
19	S19B	83	HIS
20	S20B	11	SER
20	S20B	23	ARG
20	S20B	74	LYS
21	THXB	15	ARG
29	L2B	5	LYS

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Mol	Chain	Res	Type
29	L2B	38	LYS
29	L2B	67	PHE
29	L2B	88	ARG
29	L2B	103	ARG
29	L2B	262	ARG
29	L2B	273	ARG
30	L3B	79	ARG
30	L3B	111	ARG
30	L3B	119	ARG
30	L3B	169	ASN
31	L4B	29	ASN
31	L4B	98	SER
32	L5B	4	ASP
32	L5B	10	LYS
32	L5B	21	ARG
32	L5B	33	ARG
32	L5B	47	LYS
32	L5B	51	ARG
32	L5B	67	LYS
32	L5B	80	PHE
32	L5B	95	ARG
32	L5B	118	ARG
32	L5B	153	ARG
33	L6B	23	ARG
33	L6B	25	LYS
33	L6B	59	ARG
33	L6B	67	LEU
33	L6B	77	LYS
33	L6B	83	TYR
33	L6B	86	GLU
33	L6B	88	LEU
33	L6B	97	ARG
33	L6B	101	ARG
33	L6B	111	HIS
33	L6B	147	ASN
33	L6B	152	ARG
33	L6B	153	LYS
33	L6B	167	GLU
34	L9B	1	MET
34	L9B	10	GLU
34	L9B	52	ARG
34	L9B	56	LYS

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Mol	Chain	Res	Type
34	L9B	69	LYS
34	L9B	103	ARG
34	L9B	104	GLN
34	L9B	133	HIS
35	L13B	76	SER
35	L13B	114	ARG
36	L14B	7	TYR
36	L14B	13	ASN
36	L14B	23	ARG
36	L14B	49	ARG
36	L14B	71	ARG
36	L14B	91	LEU
36	L14B	104	ARG
37	L15B	21	ARG
37	L15B	25	SER
37	L15B	35	HIS
37	L15B	85	LEU
37	L15B	110	TYR
37	L15B	115	LEU
37	L15B	117	GLU
37	L15B	124	LYS
38	L16B	10	ARG
38	L16B	14	ARG
38	L16B	25	ASP
38	L16B	26	TYR
38	L16B	45	GLN
38	L16B	59	ARG
38	L16B	89	ASN
38	L16B	101	ARG
39	L17B	1	MET
39	L17B	2	ARG
39	L17B	88	ARG
39	L17B	91	GLN
40	L18B	15	ARG
40	L18B	20	ARG
40	L18B	25	ARG
40	L18B	30	ARG
40	L18B	34	HIS
40	L18B	56	LEU
40	L18B	75	GLU
40	L18B	89	ARG
40	L18B	110	LEU

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Mol	Chain	Res	Type
41	L19B	1	MET
41	L19B	58	ASN
41	L19B	61	PHE
41	L19B	98	LYS
41	L19B	112	ARG
41	L19B	125	ARG
42	L20B	15	LYS
42	L20B	19	LYS
42	L20B	31	SER
42	L20B	57	PHE
42	L20B	69	CYS
42	L20B	79	PHE
42	L20B	97	ASP
42	L20B	114	LYS
43	L21B	10	LYS
43	L21B	44	LYS
43	L21B	49	THR
43	L21B	51	VAL
43	L21B	60	GLU
43	L21B	75	PHE
43	L21B	78	LYS
43	L21B	82	ARG
43	L21B	98	GLU
44	L22B	11	ARG
44	L22B	70	TYR
44	L22B	111	HIS
44	L22B	113	LYS
45	L23B	62	LYS
45	L23B	64	LYS
45	L23B	76	ARG
46	L24B	43	ASN
46	L24B	55	TYR
46	L24B	81	LYS
47	L25B	2	GLU
47	L25B	31	ARG
47	L25B	32	HIS
47	L25B	34	ASN
47	L25B	76	LEU
47	L25B	87	ASP
47	L25B	94	GLU
47	L25B	119	GLU
47	L25B	154	ASP

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Mol	Chain	Res	Type
47	L25B	169	GLU
48	L27B	4	LYS
48	L27B	5	LYS
48	L27B	25	ARG
48	L27B	35	ASN
48	L27B	64	ASP
49	L28B	27	GLU
49	L28B	88	LYS
50	L29B	3	LEU
50	L29B	67	LYS
51	L30B	30	ARG
52	L31B	40	HIS
52	L31B	49	PHE
52	L31B	58	ARG
52	L31B	61	ARG
52	L31B	62	ARG
53	L32B	21	SER
53	L32B	33	CYS
53	L32B	40	LYS
53	L32B	52	TYR
53	L32B	55	ARG
54	L33B	53	LYS
55	L34B	9	ARG
55	L34B	32	LYS
55	L34B	49	ARG
56	L35B	19	SER
56	L35B	31	HIS
56	L35B	52	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	16SA	1508/1512 (99%)	317 (21%)	47 (3%)
1	16SB	1504/1512 (99%)	336 (22%)	46 (3%)
22	ASIA	74/76 (97%)	42 (56%)	1 (1%)
23	PSIA	73/76 (96%)	24 (32%)	2 (2%)
23	PSIB	73/76 (96%)	29 (39%)	2 (2%)
24	ESIA	74/76 (97%)	34 (45%)	2 (2%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
24	ESIB	74/76 (97%)	23 (31%)	2 (2%)
25	MRNA	29/30 (96%)	7 (24%)	2 (6%)
25	MRNB	29/30 (96%)	11 (37%)	2 (6%)
26	TRNA	71/76 (93%)	34 (47%)	3 (4%)
27	23SA	2883/2911 (99%)	632 (21%)	70 (2%)
27	23SB	2867/2911 (98%)	658 (22%)	64 (2%)
28	5SA	121/124 (97%)	27 (22%)	1 (0%)
28	5SB	120/124 (96%)	34 (28%)	4 (3%)
57	ASIB	74/76 (97%)	38 (51%)	2 (2%)
All	All	9574/9686 (98%)	2246 (23%)	250 (2%)

All (2246) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	16SA	654	A
1	16SA	655	G
1	16SA	678	A
1	16SA	685	G
1	16SA	693	C
1	16SA	694	C
1	16SA	697	A
1	16SA	707	G
1	16SA	711	U
1	16SA	712	G
1	16SA	719	G
1	16SA	724	G
1	16SA	725	U
1	16SA	726	U
1	16SA	728	U
1	16SA	729	A
1	16SA	732	C
1	16SA	733	C
1	16SA	740	A
1	16SA	747	G
1	16SA	759	A
1	16SA	760	C
1	16SA	777	C
1	16SA	782	G
1	16SA	784	G
1	16SA	802	A
1	16SA	809	C
1	16SA	812	A

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Mol	Chain	Res	Type
1	16SA	813	U
1	16SA	821	G
1	16SA	832	C
1	16SA	835	U
1	16SA	836	G
1	16SA	837	G
1	16SA	847	A
1	16SA	848	A
1	16SA	849	A
1	16SA	853	C
1	16SA	855	U
1	16SA	856	U
1	16SA	857	G
1	16SA	867	G
1	16SA	872	G
1	16SA	885	U
1	16SA	888	G
1	16SA	892	G
1	16SA	907	G
1	16SA	908	C
1	16SA	911	A
1	16SA	922	G
1	16SA	930	G
1	16SA	959	G
1	16SA	962	A
1	16SA	969	C
1	16SA	970	A
1	16SA	973	G
1	16SA	985	A
1	16SA	986	C
1	16SA	987	G
1	16SA	988	G
1	16SA	990	A
1	16SA	992	G
1	16SA	993	C
1	16SA	994	A
1	16SA	995	G
1	16SA	1008	U
1	16SA	1014	A
1	16SA	1029	G
1	16SA	1030	A
1	16SA	1038	A

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Mol	Chain	Res	Type
1	16SA	1039	C
1	16SA	1047	G
1	16SA	1053	A
1	16SA	1054	G
1	16SA	1055	A
1	16SA	1062	U
1	16SA	1063	C
1	16SA	1064	G
1	16SA	1065	G
1	16SA	1070	U
1	16SA	1071	A
1	16SA	1075	U
1	16SA	1080	A
1	16SA	1081	A
1	16SA	1101	C
1	16SA	1102	G
1	16SA	1105	G
1	16SA	1112	A
1	16SA	1115	G
1	16SA	1116	U
1	16SA	1126	A
1	16SA	1127	U
1	16SA	1134	G
1	16SA	1138	A
1	16SA	1139	A
1	16SA	1140	C
1	16SA	1147	C
1	16SA	1156	G7M
1	16SA	1160	U
1	16SA	1161	A
1	16SA	1162	A
1	16SA	1165	C
1	16SA	1174	C
1	16SA	1176	A
1	16SA	1188	A
1	16SA	1190	U
1	16SA	1191	C
1	16SA	1192	A
1	16SA	1193	C
1	16SA	1197	G
1	16SA	1201	A
1	16SA	1202	A

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Mol	Chain	Res	Type
1	16SA	1205	G
1	16SA	1206	G
1	16SA	1236	A
1	16SA	1243	A
1	16SA	1252	C
1	16SA	1256	G
1	16SA	1259	G
1	16SA	1260	G
1	16SA	1279	G
1	16SA	1282	A
1	16SA	1290	G
1	16SA	1294	A
1	16SA	1295	G
1	16SA	1316	A
1	16SA	1330	C
1	16SA	1331	A
1	16SA	1332	G
1	16SA	1333	A
1	16SA	1350	G
1	16SA	1352	U
1	16SA	1353	G
1	16SA	1360	G
1	16SA	1363	G
1	16SA	1377	C
1	16SA	1378	C
1	16SA	1382	A
1	16SA	1383	C
1	16SA	1384	G
1	16SA	1395	A
1	16SA	1406	A
1	16SA	1407	G
1	16SA	1421	A
1	16SA	1422	U
1	16SA	1423	A
1	16SA	1442	U
1	16SA	1444	A
1	16SA	1446	C
1	16SA	1447	G
1	16SA	1449	U
1	16SA	1450	G
1	16SA	1457	A
1	16SA	1468	U

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Mol	Chain	Res	Type
1	16SA	1470	U
1	16SA	1471	C
1	16SA	1476	G
1	16SA	1482	A
1	16SA	1493	U
1	16SA	1496	A
1	16SA	1497	G
1	16SA	1525	G
1	16SA	1536	A
1	16SA	1537	A
1	16SA	1539	G
1	16SA	1549	G
1	16SA	1550	G
1	16SA	1557	C
1	16SA	1558	A
1	16SA	1559	C
1	16SA	1583	U
1	16SA	1591	A
1	16SA	1592	A
1	16SA	1594	G
1	16SA	1595	C
1	16SA	1597	A
1	16SA	1598	A
1	16SA	1599	G
1	16SA	1600	A
1	16SA	1603	C
1	16SA	1604	U
1	16SA	1609	A
1	16SA	1614	U
1	16SA	1615	U
1	16SA	1616	G
1	16SA	1625	G
1	16SA	1628	A
1	16SA	1630	C
1	16SA	1633	G
1	16SA	1640	A
1	16SA	1645	G
1	16SA	1648	G
1	16SA	1649	U
1	16SA	1650	G
1	16SA	1652	C
1	16SA	1653	C

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Mol	Chain	Res	Type
1	16SA	1655	G
1	16SA	1657	G
1	16SA	1659	G
1	16SA	1661	G
1	16SA	1664	G
1	16SA	1666	C
1	16SA	1668	U
1	16SA	1674	A
1	16SA	1681	G
1	16SA	1682	C
1	16SA	1683	A
1	16SA	1694	C
1	16SA	1709	G
1	16SA	1710	G
1	16SA	1722	G
1	16SA	1723	U
1	16SA	1729	A
1	16SA	1746	C
1	16SA	1750	U
1	16SA	1753	U
1	16SA	1754	U
1	16SA	1755	G
1	16SA	1756	C
1	16SA	1757	C
1	16SA	1758	A
1	16SA	1759	G
1	16SA	1760	C
1	16SA	1761	G
1	16SA	1764	U
1	16SA	1765	C
1	16SA	1766	G
1	16SA	1767	G
1	16SA	1768	C
1	16SA	1774	A
1	16SA	1780	A
1	16SA	1785	A
1	16SA	1786	C
1	16SA	1787	U
1	16SA	1789	C
1	16SA	1798	G
1	16SA	1808	G
1	16SA	1809	G

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Mol	Chain	Res	Type
1	16SA	1810	A
1	16SA	1811	G
1	16SA	1812	G
1	16SA	1814	G
1	16SA	1815	A
1	16SA	1820	G
1	16SA	1823	U
1	16SA	1825	G
1	16SA	1827	C
1	16SA	1828	A
1	16SA	1839	U
1	16SA	1845	C
1	16SA	1852	A
1	16SA	1854	A
1	16SA	1865	A
1	16SA	1877	A
1	16SA	1883	A
1	16SA	1884	U
1	16SA	1885	G
1	16SA	1889	C
1	16SA	1890	C
1	16SA	1896	A
1	16SA	1899	G
1	16SA	1900	G
1	16SA	1902	A
1	16SA	1907	A
1	16SA	1908	U
1	16SA	1909	C
1	16SA	1913	A
1	16SA	1914	A
1	16SA	1916	A
1	16SA	1919	U
1	16SA	1924	C
1	16SA	1926	A
1	16SA	1927	G
1	16SA	1928	U
1	16SA	1929	U
1	16SA	1932	G
1	16SA	1941	C
1	16SA	1945	A
1	16SA	1946	A
1	16SA	1947	C

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Mol	Chain	Res	Type
1	16SA	1948	C
1	16SA	1949	C
1	16SA	1950	G
1	16SA	1954	C
1	16SA	1962	C
1	16SA	1963	C
1	16SA	1965	G
1	16SA	1973	A
1	16SA	1980	G
1	16SA	1990	C
1	16SA	1991	A
1	16SA	1992	U
1	16SA	1996	G
1	16SA	1998	G
1	16SA	2026	A
1	16SA	2047	G
1	16SA	2070	G
1	16SA	2071	G
1	16SA	2072	A
1	16SA	2073	G
1	16SA	2077	A
1	16SA	2078	C
1	16SA	2079	G
1	16SA	2080	G
1	16SA	2092	G
1	16SA	2110	G
1	16SA	2115	A
1	16SA	2120	G
1	16SA	2122	A
1	16SA	2125	A
1	16SA	2127	G
1	16SA	2129	U
1	16SA	2140	G
1	16SA	2143	G
1	16SA	2152	G
1	16SA	2153	G
1	16SA	2154	A
22	ASIA	2	C
22	ASIA	3	C
22	ASIA	5	G
22	ASIA	7	A
22	ASIA	8	4SU

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Mol	Chain	Res	Type
22	ASIA	9	A
22	ASIA	10	G
22	ASIA	11	C
22	ASIA	15	G
22	ASIA	16	U
22	ASIA	17	C
22	ASIA	18	G
22	ASIA	19	G
22	ASIA	20	U
22	ASIA	21	A
22	ASIA	22	G
22	ASIA	24	G
22	ASIA	26	A
22	ASIA	36	A
22	ASIA	42	C
22	ASIA	44	G
22	ASIA	45	U
22	ASIA	46	G7M
22	ASIA	47	U
22	ASIA	48	C
22	ASIA	49	C
22	ASIA	52	G
22	ASIA	53	G
22	ASIA	55	PSU
22	ASIA	58	A
22	ASIA	59	U
22	ASIA	60	U
22	ASIA	61	C
22	ASIA	63	G
22	ASIA	64	A
22	ASIA	66	U
22	ASIA	70	G
22	ASIA	72	C
22	ASIA	73	A
22	ASIA	74	C
22	ASIA	75	C
22	ASIA	76	A
23	PSIA	2	C
23	PSIA	3	C
23	PSIA	8	4SU
23	PSIA	11	C
23	PSIA	13	C

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Mol	Chain	Res	Type
23	PSIA	17	C
23	PSIA	18	G
23	PSIA	19	G
23	PSIA	20	U
23	PSIA	21	A
23	PSIA	22	G
23	PSIA	25	C
23	PSIA	30	G
23	PSIA	38	A
23	PSIA	44	G
23	PSIA	45	U
23	PSIA	46	G7M
23	PSIA	48	C
23	PSIA	55	PSU
23	PSIA	56	C
23	PSIA	58	A
23	PSIA	60	U
23	PSIA	61	C
23	PSIA	69	G
24	ESIA	2	C
24	ESIA	3	C
24	ESIA	7	A
24	ESIA	8	U
24	ESIA	9	A
24	ESIA	10	G
24	ESIA	13	C
24	ESIA	14	A
24	ESIA	16	U
24	ESIA	17	C
24	ESIA	18	G
24	ESIA	19	G
24	ESIA	20	U
24	ESIA	21	A
24	ESIA	22	G
24	ESIA	30	G
24	ESIA	38	A
24	ESIA	42	C
24	ESIA	45	U
24	ESIA	46	G
24	ESIA	47	U
24	ESIA	48	C
24	ESIA	49	C

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Mol	Chain	Res	Type
24	ESIA	53	G
24	ESIA	55	U
24	ESIA	56	C
24	ESIA	58	A
24	ESIA	59	U
24	ESIA	63	G
24	ESIA	65	G
24	ESIA	66	U
24	ESIA	72	C
24	ESIA	73	A
24	ESIA	76	A
25	MRNA	33	G
25	MRNA	43	U
25	MRNA	45	U
25	MRNA	46	U
25	MRNA	54	U
25	MRNA	56	U
25	MRNA	57	U
26	TRNA	2	C
26	TRNA	3	C
26	TRNA	6	G
26	TRNA	8	4SU
26	TRNA	10	G
26	TRNA	11	C
26	TRNA	12	U
26	TRNA	13	C
26	TRNA	15	G
26	TRNA	16	H2U
26	TRNA	19	G
26	TRNA	20	H2U
26	TRNA	21	A
26	TRNA	22	G
26	TRNA	23	A
26	TRNA	27	G
26	TRNA	35	A
26	TRNA	38	A
26	TRNA	40	C
26	TRNA	43	C
26	TRNA	44	G
26	TRNA	45	U
26	TRNA	46	G
26	TRNA	47	U

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Mol	Chain	Res	Type
26	TRNA	48	C
26	TRNA	49	C
26	TRNA	50	U
26	TRNA	52	G
26	TRNA	53	G
26	TRNA	54	5MU
26	TRNA	56	C
26	TRNA	58	A
26	TRNA	63	G
26	TRNA	66	U
27	23SA	3	U
27	23SA	4	C
27	23SA	5	A
27	23SA	10	G
27	23SA	15	G
27	23SA	34	C
27	23SA	35	G
27	23SA	45	C
27	23SA	48	A
27	23SA	57	G
27	23SA	59	G
27	23SA	60	G
27	23SA	62	U
27	23SA	70	A
27	23SA	71	U
27	23SA	73	A
27	23SA	74	G
27	23SA	77	A
27	23SA	82	G
27	23SA	83	A
27	23SA	89	U
27	23SA	100	G
27	23SA	116	A
27	23SA	117	A
27	23SA	118	U
27	23SA	129	G
27	23SA	137	G
27	23SA	140	A
27	23SA	155	C
27	23SA	157	U
27	23SA	158	U
27	23SA	160	U

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Mol	Chain	Res	Type
27	23SA	186	A
27	23SA	189	A
27	23SA	204	G
27	23SA	205	G
27	23SA	206	A
27	23SA	207	G
27	23SA	211	A
27	23SA	212	A
27	23SA	213	A
27	23SA	217	A
27	23SA	218	A
27	23SA	219	A
27	23SA	220	U
27	23SA	222	G
27	23SA	229	U
27	23SA	238	G
27	23SA	239	C
27	23SA	242	G
27	23SA	255	A
27	23SA	256	G
27	23SA	259	U
27	23SA	272	U
27	23SA	273	U
27	23SA	274	G
27	23SA	276	C
27	23SA	289	U
27	23SA	290	G
27	23SA	297	U
27	23SA	298	C
27	23SA	304	C
27	23SA	324	A
27	23SA	336	A
27	23SA	337	G
27	23SA	340	G
27	23SA	354	G
27	23SA	355	A
27	23SA	367	G
27	23SA	377	G
27	23SA	388	G
27	23SA	393	U
27	23SA	394	A
27	23SA	395	C

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Mol	Chain	Res	Type
27	23SA	400	G
27	23SA	401	U
27	23SA	414	G
27	23SA	424	G
27	23SA	432	C
27	23SA	433	U
27	23SA	439	G
27	23SA	457	A
27	23SA	472	C
27	23SA	476	U
27	23SA	479	C
27	23SA	482	A
27	23SA	483	C
27	23SA	485	A
27	23SA	492	U
27	23SA	498	A
27	23SA	499	A
27	23SA	507	A
27	23SA	509	G
27	23SA	521	G
27	23SA	531	U
27	23SA	532	A
27	23SA	535	G
27	23SA	536	C
27	23SA	539	G
27	23SA	555	A
27	23SA	556	A
27	23SA	557	G
27	23SA	558	C
27	23SA	559	A
27	23SA	560	G
27	23SA	563	A
27	23SA	564	C
27	23SA	565	G
27	23SA	572	C
27	23SA	575	G
27	23SA	580	U
27	23SA	581	G
27	23SA	588	G
27	23SA	589	C
27	23SA	595	G
27	23SA	598	G

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Mol	Chain	Res	Type
27	23SA	600	A
27	23SA	612	C
27	23SA	613	U
27	23SA	617	G
27	23SA	618	G
27	23SA	628	A
27	23SA	632	U
27	23SA	635	G
27	23SA	640	U
27	23SA	641	G
27	23SA	643	G
27	23SA	644	G
27	23SA	647	G
27	23SA	648	A
27	23SA	649	G
27	23SA	654	A
27	23SA	664	A
27	23SA	672	C
27	23SA	673	A
27	23SA	681	A
27	23SA	682	A
27	23SA	684	G
27	23SA	699	C
27	23SA	700	G
27	23SA	701	A
27	23SA	706	U
27	23SA	717	G
27	23SA	719	A
27	23SA	726	A
27	23SA	735	G
27	23SA	750	G
27	23SA	758	U
27	23SA	779	C
27	23SA	811	U
27	23SA	824	G
27	23SA	825	G
27	23SA	831	A
27	23SA	833	A
27	23SA	834	G
27	23SA	838	A
27	23SA	839	C
27	23SA	841	G

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Mol	Chain	Res	Type
27	23SA	842	A
27	23SA	854	G
27	23SA	861	C
27	23SA	868	A
27	23SA	876	U
27	23SA	877	U
27	23SA	895	C
27	23SA	896	U
27	23SA	897	G
27	23SA	908	G
27	23SA	926	U
27	23SA	927	A
27	23SA	928	G
27	23SA	929	G
27	23SA	930	G
27	23SA	931	G
27	23SA	932	G
27	23SA	933	C
27	23SA	934	C
27	23SA	935	C
27	23SA	936	A
27	23SA	937	C
27	23SA	938	C
27	23SA	939	A
27	23SA	940	G
27	23SA	941	C
27	23SA	944	A
27	23SA	945	C
27	23SA	946	C
27	23SA	947	A
27	23SA	948	A
27	23SA	952	C
27	23SA	954	G
27	23SA	958	A
27	23SA	959	A
27	23SA	963	C
27	23SA	965	A
27	23SA	967	G
27	23SA	978	G
27	23SA	979	G
27	23SA	985	G
27	23SA	988	A

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Mol	Chain	Res	Type
27	23SA	992	A
27	23SA	993	G
27	23SA	1000	A
27	23SA	1006	A
27	23SA	1008	C
27	23SA	1021	G
27	23SA	1031	A
27	23SA	1038	A
27	23SA	1039	C
27	23SA	1044	A
27	23SA	1059	G
27	23SA	1060	U
27	23SA	1061	C
27	23SA	1070	G
27	23SA	1071	U
27	23SA	1073	G
27	23SA	1074	U
27	23SA	1075	A
27	23SA	1081	U
27	23SA	1093	A
27	23SA	1095	G
27	23SA	1098	A
27	23SA	1106	U
27	23SA	1108	U
27	23SA	1109	U
27	23SA	1110	G
27	23SA	1119	G
27	23SA	1122	G
27	23SA	1124	C
27	23SA	1125	A
27	23SA	1126	U
27	23SA	1127	C
27	23SA	1130	U
27	23SA	1131	U
27	23SA	1132	A
27	23SA	1133	A
27	23SA	1134	A
27	23SA	1135	G
27	23SA	1136	A
27	23SA	1138	U
27	23SA	1139	G
27	23SA	1158	G

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Mol	Chain	Res	Type
27	23SA	1159	A
27	23SA	1160	G
27	23SA	1170	G
27	23SA	1177	A
27	23SA	1178	U
27	23SA	1179	G
27	23SA	1183	C
27	23SA	1184	G
27	23SA	1186	G
27	23SA	1187	G
27	23SA	1190	U
27	23SA	1191	A
27	23SA	1192	A
27	23SA	1198	G
27	23SA	1205	A
27	23SA	1206	G
27	23SA	1208	U
27	23SA	1217	G
27	23SA	1221	G
27	23SA	1223	U
27	23SA	1224	G
27	23SA	1225	A
27	23SA	1227	C
27	23SA	1228	C
27	23SA	1243	G
27	23SA	1245	G
27	23SA	1252	A
27	23SA	1253	U
27	23SA	1254	G
27	23SA	1259	U
27	23SA	1268	A
27	23SA	1269	C
27	23SA	1276	G
27	23SA	1302	A
27	23SA	1305	G
27	23SA	1314	A
27	23SA	1318	A
27	23SA	1320	G
27	23SA	1321	A
27	23SA	1322	U
27	23SA	1335	A
27	23SA	1349	U

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Mol	Chain	Res	Type
27	23SA	1350	A
27	23SA	1358	G
27	23SA	1362	U
27	23SA	1363	C
27	23SA	1368	G
27	23SA	1378	U
27	23SA	1390	U
27	23SA	1394	C
27	23SA	1398	A
27	23SA	1401	U
27	23SA	1408	A
27	23SA	1409	A
27	23SA	1414	A
27	23SA	1428	A
27	23SA	1433	A
27	23SA	1434	G
27	23SA	1435	C
27	23SA	1437	G
27	23SA	1460	C
27	23SA	1465	G
27	23SA	1466	C
27	23SA	1468	A
27	23SA	1469	U
27	23SA	1470	G
27	23SA	1477	C
27	23SA	1486	C
27	23SA	1494	A
27	23SA	1499	A
27	23SA	1500	G
27	23SA	1502	C
27	23SA	1508	C
27	23SA	1509	G
27	23SA	1511	G
27	23SA	1517	C
27	23SA	1521	A
27	23SA	1524	C
27	23SA	1525	G
27	23SA	1526	C
27	23SA	1529	G
27	23SA	1531	U
27	23SA	1532	G
27	23SA	1534	G

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Mol	Chain	Res	Type
27	23SA	1535	A
27	23SA	1536	G
27	23SA	1542	C
27	23SA	1546	U
27	23SA	1554	C
27	23SA	1555	C
27	23SA	1557	A
27	23SA	1558	C
27	23SA	1559	A
27	23SA	1563	U
27	23SA	1564	C
27	23SA	1574	G
27	23SA	1582	C
27	23SA	1583	G
27	23SA	1584	U
27	23SA	1586	C
27	23SA	1587	G
27	23SA	1592	A
27	23SA	1593	C
27	23SA	1594	A
27	23SA	1604	A
27	23SA	1605	G
27	23SA	1608	A
27	23SA	1609	G
27	23SA	1610	G
27	23SA	1616	A
27	23SA	1619	A
27	23SA	1628	U
27	23SA	1629	A
27	23SA	1635	A
27	23SA	1642	G
27	23SA	1647	C
27	23SA	1657	A
27	23SA	1659	A
27	23SA	1660	C
27	23SA	1666	C
27	23SA	1667	A
27	23SA	1696	C
27	23SA	1698	C
27	23SA	1703	G
27	23SA	1704	A
27	23SA	1724	G

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Mol	Chain	Res	Type
27	23SA	1745	G
27	23SA	1751	A
27	23SA	1753	G
27	23SA	1766	G
27	23SA	1769	G
27	23SA	1770	A
27	23SA	1771	U
27	23SA	1772	G
27	23SA	1773	A
27	23SA	1776	C
27	23SA	1784	G
27	23SA	1787	G
27	23SA	1792	G
27	23SA	1794	A
27	23SA	1796	A
27	23SA	1797	G
27	23SA	1798	G
27	23SA	1807	A
27	23SA	1814	A
27	23SA	1816	C
27	23SA	1821	A
27	23SA	1825	A
27	23SA	1832	U
27	23SA	1833	G
27	23SA	1834	C
27	23SA	1835	G
27	23SA	1850	G
27	23SA	1854	U
27	23SA	1863	A
27	23SA	1873	G
27	23SA	1880	G
27	23SA	1881	A
27	23SA	1882	A
27	23SA	1892	G
27	23SA	1899	G
27	23SA	1903	G
27	23SA	1907	C
27	23SA	1913	G
27	23SA	1914	A
27	23SA	1925	A
27	23SA	1931	G
27	23SA	1939	C

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Mol	Chain	Res	Type
27	23SA	1954	G
27	23SA	1955	G
27	23SA	1959	C
27	23SA	1961	A
27	23SA	1962	A
27	23SA	1963	A
27	23SA	1964	5MU
27	23SA	1965	U
27	23SA	1980	U
27	23SA	1985	A
27	23SA	1988	U
27	23SA	1989	G
27	23SA	1992	C
27	23SA	1994	A
27	23SA	1995	A
27	23SA	1996	A
27	23SA	1997	A
27	23SA	2007	C
27	23SA	2017	G
27	23SA	2018	U
27	23SA	2045	A
27	23SA	2048	G
27	23SA	2052	G
27	23SA	2056	A
27	23SA	2057	G
27	23SA	2058	A
27	23SA	2068	C
27	23SA	2076	A
27	23SA	2079	A
27	23SA	2080	C
27	23SA	2081	G
27	23SA	2084	A
27	23SA	2085	A
27	23SA	2086	G
27	23SA	2087	A
27	23SA	2088	C
27	23SA	2094	G
27	23SA	2124	U
27	23SA	2125	G
27	23SA	2126	G
27	23SA	2136	C
27	23SA	2138	U

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Mol	Chain	Res	Type
27	23SA	2139	A
27	23SA	2140	G
27	23SA	2141	G
27	23SA	2142	A
27	23SA	2143	U
27	23SA	2144	A
27	23SA	2145	G
27	23SA	2150	G
27	23SA	2151	A
27	23SA	2153	C
27	23SA	2154	C
27	23SA	2157	U
27	23SA	2158	G
27	23SA	2161	C
27	23SA	2170	C
27	23SA	2171	C
27	23SA	2172	G
27	23SA	2173	G
27	23SA	2185	G
27	23SA	2188	C
27	23SA	2191	G
27	23SA	2193	G
27	23SA	2194	A
27	23SA	2195	A
27	23SA	2196	A
27	23SA	2197	U
27	23SA	2198	A
27	23SA	2199	C
27	23SA	2201	A
27	23SA	2203	C
27	23SA	2214	U
27	23SA	2215	G
27	23SA	2217	G
27	23SA	2223	A
27	23SA	2230	G
27	23SA	2231	G
27	23SA	2232	A
27	23SA	2233	U
27	23SA	2234	G
27	23SA	2240	A
27	23SA	2253	G
27	23SA	2254	G

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Mol	Chain	Res	Type
27	23SA	2267	G
27	23SA	2282	A
27	23SA	2288	A
27	23SA	2290	C
27	23SA	2293	A
27	23SA	2295	G
27	23SA	2298	C
27	23SA	2302	A
27	23SA	2303	A
27	23SA	2304	G
27	23SA	2319	G
27	23SA	2320	A
27	23SA	2322	G
27	23SA	2323	G
27	23SA	2327	U
27	23SA	2329	C
27	23SA	2334	G
27	23SA	2335	A
27	23SA	2336	G
27	23SA	2340	G
27	23SA	2349	G
27	23SA	2351	A
27	23SA	2361	A
27	23SA	2362	C
27	23SA	2365	C
27	23SA	2392	A
27	23SA	2394	G
27	23SA	2398	G
27	23SA	2400	C
27	23SA	2406	G
27	23SA	2407	A
27	23SA	2421	U
27	23SA	2422	G
27	23SA	2426	A
27	23SA	2437	A
27	23SA	2438	U
27	23SA	2439	C
27	23SA	2441	A
27	23SA	2442	C
27	23SA	2444	G
27	23SA	2445	A
27	23SA	2450	A

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Mol	Chain	Res	Type
27	23SA	2454	A
27	23SA	2455	C
27	23SA	2456	C
27	23SA	2463	A
27	23SA	2475	U
27	23SA	2484	A
27	23SA	2485	G
27	23SA	2488	U
27	23SA	2489	C
27	23SA	2490	C
27	23SA	2491	A
27	23SA	2497	G
27	23SA	2509	G
27	23SA	2517	G
27	23SA	2519	U
27	23SA	2520	G
27	23SA	2522	C
27	23SA	2533	A
27	23SA	2534	U
27	23SA	2540	G
27	23SA	2544	G
27	23SA	2558	G
27	23SA	2569	U
27	23SA	2581	A
27	23SA	2582	G
27	23SA	2588	C
27	23SA	2600	U
27	23SA	2614	G
27	23SA	2617	A
27	23SA	2624	U
27	23SA	2625	C
27	23SA	2626	U
27	23SA	2627	C
27	23SA	2644	A
27	23SA	2645	G
27	23SA	2653	G
27	23SA	2654	A
27	23SA	2661	C
27	23SA	2669	A
27	23SA	2670	G
27	23SA	2680	A
27	23SA	2681	C

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Mol	Chain	Res	Type
27	23SA	2688	G
27	23SA	2694	A
27	23SA	2697	U
27	23SA	2701	G
27	23SA	2704	U
27	23SA	2706	C
27	23SA	2717	U
27	23SA	2718	C
27	23SA	2722	G
27	23SA	2727	U
27	23SA	2728	A
27	23SA	2729	A
27	23SA	2730	G
27	23SA	2742	U
27	23SA	2743	G
27	23SA	2749	A
27	23SA	2750	A
27	23SA	2760	G
27	23SA	2764	A
27	23SA	2767	G
27	23SA	2768	C
27	23SA	2773	A
27	23SA	2777	G
27	23SA	2778	G
27	23SA	2780	A
27	23SA	2781	A
27	23SA	2782	G
27	23SA	2786	G
27	23SA	2794	A
27	23SA	2795	U
27	23SA	2806	A
27	23SA	2807	C
27	23SA	2809	G
27	23SA	2810	C
27	23SA	2812	U
27	23SA	2815	A
27	23SA	2821	U
27	23SA	2831	G
27	23SA	2833	A
27	23SA	2834	A
27	23SA	2836	A
27	23SA	2839	A

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Mol	Chain	Res	Type
27	23SA	2845	U
27	23SA	2846	G
27	23SA	2847	G
27	23SA	2848	A
27	23SA	2885	G
27	23SA	2886	A
27	23SA	2892	C
27	23SA	2893	C
27	23SA	2899	G
27	23SA	2903	G
27	23SA	2904	A
27	23SA	2906	G
28	5SA	9	G
28	5SA	10	U
28	5SA	14	C
28	5SA	15	A
28	5SA	17	A
28	5SA	18	G
28	5SA	21	G
28	5SA	24	U
28	5SA	27	A
28	5SA	29	C
28	5SA	33	C
28	5SA	35	G
28	5SA	42	U
28	5SA	43	U
28	5SA	44	C
28	5SA	54	A
28	5SA	55	A
28	5SA	58	G
28	5SA	68	A
28	5SA	69	G
28	5SA	75	A
28	5SA	83	G
28	5SA	87	G
28	5SA	91	G
28	5SA	98	U
28	5SA	104	A
28	5SA	112	G
1	16SB	654	A
1	16SB	655	G
1	16SB	678	A

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Mol	Chain	Res	Type
1	16SB	685	G
1	16SB	687	G
1	16SB	693	C
1	16SB	694	C
1	16SB	697	A
1	16SB	700	C
1	16SB	710	G
1	16SB	711	U
1	16SB	712	G
1	16SB	719	G
1	16SB	722	G
1	16SB	723	G
1	16SB	729	A
1	16SB	730	C
1	16SB	732	C
1	16SB	733	C
1	16SB	735	U
1	16SB	740	A
1	16SB	747	G
1	16SB	755	A
1	16SB	759	A
1	16SB	760	C
1	16SB	771	C
1	16SB	777	C
1	16SB	803	C
1	16SB	809	C
1	16SB	814	C
1	16SB	822	U
1	16SB	826	C
1	16SB	832	C
1	16SB	834	U
1	16SB	835	U
1	16SB	836	G
1	16SB	837	G
1	16SB	840	U
1	16SB	841	G
1	16SB	847	A
1	16SB	848	A
1	16SB	849	A
1	16SB	854	U
1	16SB	855	U
1	16SB	856	U

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Mol	Chain	Res	Type
1	16SB	857	G
1	16SB	872	G
1	16SB	885	U
1	16SB	888	G
1	16SB	892	G
1	16SB	907	G
1	16SB	908	C
1	16SB	920	A
1	16SB	921	C
1	16SB	922	G
1	16SB	930	G
1	16SB	959	G
1	16SB	962	A
1	16SB	969	C
1	16SB	970	A
1	16SB	973	G
1	16SB	986	C
1	16SB	987	G
1	16SB	988	G
1	16SB	991	G
1	16SB	992	G
1	16SB	993	C
1	16SB	994	A
1	16SB	995	G
1	16SB	997	A
1	16SB	1008	U
1	16SB	1013	C
1	16SB	1029	G
1	16SB	1030	A
1	16SB	1038	A
1	16SB	1039	C
1	16SB	1047	G
1	16SB	1050	G
1	16SB	1053	A
1	16SB	1054	G
1	16SB	1055	A
1	16SB	1063	C
1	16SB	1064	G
1	16SB	1065	G
1	16SB	1070	U
1	16SB	1071	A
1	16SB	1075	U

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Mol	Chain	Res	Type
1	16SB	1080	A
1	16SB	1082	C
1	16SB	1092	A
1	16SB	1100	A
1	16SB	1101	C
1	16SB	1102	G
1	16SB	1105	G
1	16SB	1112	A
1	16SB	1115	G
1	16SB	1116	U
1	16SB	1126	A
1	16SB	1127	U
1	16SB	1134	G
1	16SB	1138	A
1	16SB	1139	A
1	16SB	1140	C
1	16SB	1147	C
1	16SB	1156	G7M
1	16SB	1159	G
1	16SB	1160	U
1	16SB	1161	A
1	16SB	1162	A
1	16SB	1165	C
1	16SB	1174	C
1	16SB	1176	A
1	16SB	1188	A
1	16SB	1190	U
1	16SB	1191	C
1	16SB	1192	A
1	16SB	1193	C
1	16SB	1197	G
1	16SB	1198	C
1	16SB	1201	A
1	16SB	1202	A
1	16SB	1205	G
1	16SB	1206	G
1	16SB	1225	C
1	16SB	1236	A
1	16SB	1243	A
1	16SB	1251	A
1	16SB	1252	C
1	16SB	1256	G

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Mol	Chain	Res	Type
1	16SB	1259	G
1	16SB	1260	G
1	16SB	1279	G
1	16SB	1282	A
1	16SB	1290	G
1	16SB	1294	A
1	16SB	1295	G
1	16SB	1316	A
1	16SB	1317	G
1	16SB	1330	C
1	16SB	1331	A
1	16SB	1332	G
1	16SB	1333	A
1	16SB	1350	G
1	16SB	1352	U
1	16SB	1353	G
1	16SB	1360	G
1	16SB	1363	G
1	16SB	1377	C
1	16SB	1378	C
1	16SB	1381	G
1	16SB	1382	A
1	16SB	1383	C
1	16SB	1384	G
1	16SB	1395	A
1	16SB	1406	A
1	16SB	1407	G
1	16SB	1415	G
1	16SB	1421	A
1	16SB	1422	U
1	16SB	1423	A
1	16SB	1444	A
1	16SB	1445	A
1	16SB	1446	C
1	16SB	1450	G
1	16SB	1457	A
1	16SB	1468	U
1	16SB	1470	U
1	16SB	1471	C
1	16SB	1476	G
1	16SB	1482	A
1	16SB	1493	U

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Mol	Chain	Res	Type
1	16SB	1495	A
1	16SB	1496	A
1	16SB	1497	G
1	16SB	1536	A
1	16SB	1537	A
1	16SB	1549	G
1	16SB	1550	G
1	16SB	1557	C
1	16SB	1558	A
1	16SB	1559	C
1	16SB	1583	U
1	16SB	1584	U
1	16SB	1591	A
1	16SB	1592	A
1	16SB	1594	G
1	16SB	1595	C
1	16SB	1597	A
1	16SB	1598	A
1	16SB	1599	G
1	16SB	1600	A
1	16SB	1601	A
1	16SB	1603	C
1	16SB	1604	U
1	16SB	1609	A
1	16SB	1614	U
1	16SB	1615	U
1	16SB	1616	G
1	16SB	1629	A
1	16SB	1630	C
1	16SB	1633	G
1	16SB	1640	A
1	16SB	1645	G
1	16SB	1647	G
1	16SB	1648	G
1	16SB	1649	U
1	16SB	1650	G
1	16SB	1652	C
1	16SB	1653	C
1	16SB	1654	C
1	16SB	1655	G
1	16SB	1657	G
1	16SB	1659	G

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Mol	Chain	Res	Type
1	16SB	1661	G
1	16SB	1663	A
1	16SB	1664	G
1	16SB	1668	U
1	16SB	1674	A
1	16SB	1678	G
1	16SB	1681	G
1	16SB	1682	C
1	16SB	1683	A
1	16SB	1694	C
1	16SB	1710	G
1	16SB	1722	G
1	16SB	1723	U
1	16SB	1727	G
1	16SB	1729	A
1	16SB	1745	G
1	16SB	1750	U
1	16SB	1752	G
1	16SB	1753	U
1	16SB	1755	G
1	16SB	1756	C
1	16SB	1757	C
1	16SB	1758	A
1	16SB	1759	G
1	16SB	1764	U
1	16SB	1765	C
1	16SB	1766	G
1	16SB	1767	G
1	16SB	1768	C
1	16SB	1774	A
1	16SB	1780	A
1	16SB	1782	G
1	16SB	1785	A
1	16SB	1786	C
1	16SB	1787	U
1	16SB	1788	G
1	16SB	1789	C
1	16SB	1798	G
1	16SB	1808	G
1	16SB	1810	A
1	16SB	1811	G
1	16SB	1812	G

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Mol	Chain	Res	Type
1	16SB	1814	G
1	16SB	1817	G
1	16SB	1820	G
1	16SB	1823	U
1	16SB	1825	G
1	16SB	1827	C
1	16SB	1828	A
1	16SB	1834	2MG
1	16SB	1838	U
1	16SB	1839	U
1	16SB	1840	A
1	16SB	1841	C
1	16SB	1845	C
1	16SB	1852	A
1	16SB	1854	A
1	16SB	1865	A
1	16SB	1868	G
1	16SB	1882	G
1	16SB	1883	A
1	16SB	1884	U
1	16SB	1885	G
1	16SB	1887	C
1	16SB	1891	C
1	16SB	1894	C
1	16SB	1899	G
1	16SB	1900	G
1	16SB	1905	U
1	16SB	1907	A
1	16SB	1908	U
1	16SB	1912	A
1	16SB	1913	A
1	16SB	1914	A
1	16SB	1916	A
1	16SB	1919	U
1	16SB	1924	C
1	16SB	1925	C
1	16SB	1926	A
1	16SB	1927	G
1	16SB	1928	U
1	16SB	1930	C
1	16SB	1932	G
1	16SB	1933	A

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Mol	Chain	Res	Type
1	16SB	1941	C
1	16SB	1945	A
1	16SB	1946	A
1	16SB	1947	C
1	16SB	1948	C
1	16SB	1949	C
1	16SB	1954	C
1	16SB	1958	G
1	16SB	1962	C
1	16SB	1963	C
1	16SB	1964	G
1	16SB	1965	G
1	16SB	1973	A
1	16SB	1974	G
1	16SB	1980	G
1	16SB	1990	C
1	16SB	1992	U
1	16SB	1996	G
1	16SB	1998	G
1	16SB	2025	C
1	16SB	2047	G
1	16SB	2070	G
1	16SB	2071	G
1	16SB	2072	A
1	16SB	2073	G
1	16SB	2076	U
1	16SB	2077	A
1	16SB	2078	C
1	16SB	2079	G
1	16SB	2110	G
1	16SB	2115	A
1	16SB	2122	A
1	16SB	2129	U
1	16SB	2140	G
1	16SB	2143	G
1	16SB	2152	G
1	16SB	2153	G
1	16SB	2160	U
1	16SB	2161	C
57	ASIB	8	U
57	ASIB	9	A
57	ASIB	10	G

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Mol	Chain	Res	Type
57	ASIB	11	C
57	ASIB	12	U
57	ASIB	13	C
57	ASIB	16	U
57	ASIB	17	C
57	ASIB	18	G
57	ASIB	19	G
57	ASIB	21	A
57	ASIB	22	G
57	ASIB	24	G
57	ASIB	26	A
57	ASIB	38	A
57	ASIB	41	C
57	ASIB	44	G
57	ASIB	46	G
57	ASIB	47	U
57	ASIB	48	C
57	ASIB	49	C
57	ASIB	50	U
57	ASIB	53	G
57	ASIB	56	C
57	ASIB	58	A
57	ASIB	59	U
57	ASIB	60	U
57	ASIB	63	G
57	ASIB	64	A
57	ASIB	66	U
57	ASIB	69	G
57	ASIB	70	G
57	ASIB	71	G
57	ASIB	72	C
57	ASIB	73	A
57	ASIB	74	C
57	ASIB	75	C
57	ASIB	76	A
23	PSIB	2	C
23	PSIB	3	C
23	PSIB	8	4SU
23	PSIB	9	A
23	PSIB	13	C
23	PSIB	16	H2U
23	PSIB	17	C

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Mol	Chain	Res	Type
23	PSIB	18	G
23	PSIB	19	G
23	PSIB	20	U
23	PSIB	21	A
23	PSIB	22	G
23	PSIB	25	C
23	PSIB	30	G
23	PSIB	38	A
23	PSIB	42	C
23	PSIB	43	C
23	PSIB	44	G
23	PSIB	45	U
23	PSIB	48	C
23	PSIB	52	G
23	PSIB	54	5MU
23	PSIB	56	C
23	PSIB	58	A
23	PSIB	61	C
23	PSIB	67	C
23	PSIB	70	G
23	PSIB	74	C
23	PSIB	76	A
24	ESIB	2	C
24	ESIB	9	A
24	ESIB	12	U
24	ESIB	13	C
24	ESIB	14	A
24	ESIB	16	U
24	ESIB	17	C
24	ESIB	18	G
24	ESIB	19	G
24	ESIB	20	U
24	ESIB	21	A
24	ESIB	22	G
24	ESIB	34	G
24	ESIB	40	C
24	ESIB	46	G
24	ESIB	48	C
24	ESIB	58	A
24	ESIB	59	U
24	ESIB	65	G
24	ESIB	72	C

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Mol	Chain	Res	Type
24	ESIB	73	A
24	ESIB	75	C
24	ESIB	76	A
25	MRNB	29	G
25	MRNB	37	G
25	MRNB	43	U
25	MRNB	46	U
25	MRNB	49	U
25	MRNB	51	U
25	MRNB	52	U
25	MRNB	54	U
25	MRNB	55	U
25	MRNB	56	U
25	MRNB	57	U
27	23SB	3	U
27	23SB	4	C
27	23SB	5	A
27	23SB	10	G
27	23SB	13	A
27	23SB	15	G
27	23SB	34	C
27	23SB	35	G
27	23SB	45	C
27	23SB	48	A
27	23SB	49	U
27	23SB	50	G
27	23SB	57	G
27	23SB	59	G
27	23SB	60	G
27	23SB	62	U
27	23SB	68	C
27	23SB	70	A
27	23SB	71	U
27	23SB	73	A
27	23SB	74	G
27	23SB	77	A
27	23SB	82	G
27	23SB	83	A
27	23SB	84	G
27	23SB	89	U
27	23SB	94	G
27	23SB	116	A

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Mol	Chain	Res	Type
27	23SB	117	A
27	23SB	118	U
27	23SB	119	G
27	23SB	127	C
27	23SB	137	G
27	23SB	140	A
27	23SB	155	C
27	23SB	163	G
27	23SB	164	C
27	23SB	186	A
27	23SB	189	A
27	23SB	196	U
27	23SB	204	G
27	23SB	205	G
27	23SB	206	A
27	23SB	207	G
27	23SB	211	A
27	23SB	212	A
27	23SB	217	A
27	23SB	219	A
27	23SB	222	G
27	23SB	223	A
27	23SB	238	G
27	23SB	239	C
27	23SB	242	G
27	23SB	255	A
27	23SB	256	G
27	23SB	271	C
27	23SB	272	U
27	23SB	273	U
27	23SB	274	G
27	23SB	275	U
27	23SB	276	C
27	23SB	282	G
27	23SB	286	U
27	23SB	289	U
27	23SB	290	G
27	23SB	296	C
27	23SB	298	C
27	23SB	301	A
27	23SB	302	C
27	23SB	303	A

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Mol	Chain	Res	Type
27	23SB	304	C
27	23SB	308	A
27	23SB	311	C
27	23SB	313	C
27	23SB	314	A
27	23SB	315	G
27	23SB	320	G
27	23SB	336	A
27	23SB	340	G
27	23SB	342	G
27	23SB	354	G
27	23SB	355	A
27	23SB	356	A
27	23SB	377	G
27	23SB	380	G
27	23SB	381	G
27	23SB	387	U
27	23SB	389	A
27	23SB	390	G
27	23SB	392	G
27	23SB	393	U
27	23SB	394	A
27	23SB	395	C
27	23SB	414	G
27	23SB	424	G
27	23SB	432	C
27	23SB	433	U
27	23SB	434	G
27	23SB	435	G
27	23SB	439	G
27	23SB	457	A
27	23SB	472	C
27	23SB	476	U
27	23SB	479	C
27	23SB	482	A
27	23SB	483	C
27	23SB	485	A
27	23SB	492	U
27	23SB	498	A
27	23SB	499	A
27	23SB	507	A
27	23SB	509	G

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Mol	Chain	Res	Type
27	23SB	521	G
27	23SB	532	A
27	23SB	535	G
27	23SB	536	C
27	23SB	539	G
27	23SB	556	A
27	23SB	557	G
27	23SB	558	C
27	23SB	559	A
27	23SB	560	G
27	23SB	564	C
27	23SB	575	G
27	23SB	588	G
27	23SB	589	C
27	23SB	595	G
27	23SB	598	G
27	23SB	600	A
27	23SB	608	G
27	23SB	613	U
27	23SB	618	G
27	23SB	628	A
27	23SB	629	G
27	23SB	632	U
27	23SB	635	G
27	23SB	638	G
27	23SB	639	U
27	23SB	640	U
27	23SB	643	G
27	23SB	644	G
27	23SB	648	A
27	23SB	649	G
27	23SB	653	U
27	23SB	654	A
27	23SB	664	A
27	23SB	672	C
27	23SB	673	A
27	23SB	679	C
27	23SB	680	A
27	23SB	681	A
27	23SB	682	A
27	23SB	686	C
27	23SB	699	C

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Mol	Chain	Res	Type
27	23SB	700	G
27	23SB	701	A
27	23SB	706	U
27	23SB	719	A
27	23SB	726	A
27	23SB	735	G
27	23SB	758	U
27	23SB	771	A
27	23SB	779	C
27	23SB	807	C
27	23SB	811	U
27	23SB	824	G
27	23SB	825	G
27	23SB	831	A
27	23SB	833	A
27	23SB	834	G
27	23SB	838	A
27	23SB	839	C
27	23SB	841	G
27	23SB	842	A
27	23SB	854	G
27	23SB	861	C
27	23SB	868	A
27	23SB	876	U
27	23SB	877	U
27	23SB	895	C
27	23SB	896	U
27	23SB	908	G
27	23SB	914	C
27	23SB	920	U
27	23SB	927	A
27	23SB	928	G
27	23SB	932	G
27	23SB	934	C
27	23SB	935	C
27	23SB	936	A
27	23SB	937	C
27	23SB	938	C
27	23SB	942	C
27	23SB	944	A
27	23SB	945	C
27	23SB	947	A

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Mol	Chain	Res	Type
27	23SB	949	A
27	23SB	952	C
27	23SB	954	G
27	23SB	958	A
27	23SB	963	C
27	23SB	965	A
27	23SB	967	G
27	23SB	978	G
27	23SB	979	G
27	23SB	985	G
27	23SB	988	A
27	23SB	992	A
27	23SB	993	G
27	23SB	1000	A
27	23SB	1005	U
27	23SB	1006	A
27	23SB	1008	C
27	23SB	1021	G
27	23SB	1028	A
27	23SB	1031	A
27	23SB	1038	A
27	23SB	1039	C
27	23SB	1044	A
27	23SB	1058	A
27	23SB	1059	G
27	23SB	1060	U
27	23SB	1061	C
27	23SB	1070	G
27	23SB	1071	U
27	23SB	1073	G
27	23SB	1074	U
27	23SB	1075	A
27	23SB	1081	U
27	23SB	1085	G
27	23SB	1086	C
27	23SB	1092	G
27	23SB	1093	A
27	23SB	1094	A
27	23SB	1095	G
27	23SB	1096	A
27	23SB	1102	A
27	23SB	1104	G

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Mol	Chain	Res	Type
27	23SB	1108	U
27	23SB	1110	G
27	23SB	1128	A
27	23SB	1133	A
27	23SB	1134	A
27	23SB	1135	G
27	23SB	1136	A
27	23SB	1138	U
27	23SB	1139	G
27	23SB	1153	U
27	23SB	1159	A
27	23SB	1160	G
27	23SB	1170	G
27	23SB	1176	A
27	23SB	1177	A
27	23SB	1178	U
27	23SB	1179	G
27	23SB	1183	C
27	23SB	1184	G
27	23SB	1187	G
27	23SB	1191	A
27	23SB	1192	A
27	23SB	1205	A
27	23SB	1218	G
27	23SB	1221	G
27	23SB	1222	A
27	23SB	1223	U
27	23SB	1224	G
27	23SB	1225	A
27	23SB	1226	C
27	23SB	1228	C
27	23SB	1243	G
27	23SB	1245	G
27	23SB	1253	U
27	23SB	1254	G
27	23SB	1258	A
27	23SB	1259	U
27	23SB	1260	G
27	23SB	1268	A
27	23SB	1269	C
27	23SB	1272	G
27	23SB	1302	A

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Mol	Chain	Res	Type
27	23SB	1304	U
27	23SB	1305	G
27	23SB	1314	A
27	23SB	1318	A
27	23SB	1320	G
27	23SB	1321	A
27	23SB	1322	U
27	23SB	1335	A
27	23SB	1349	U
27	23SB	1350	A
27	23SB	1358	G
27	23SB	1362	U
27	23SB	1363	C
27	23SB	1368	G
27	23SB	1378	U
27	23SB	1390	U
27	23SB	1394	C
27	23SB	1398	A
27	23SB	1401	U
27	23SB	1408	A
27	23SB	1409	A
27	23SB	1414	A
27	23SB	1417	G
27	23SB	1428	A
27	23SB	1433	A
27	23SB	1434	G
27	23SB	1435	C
27	23SB	1437	G
27	23SB	1456	C
27	23SB	1463	G
27	23SB	1465	G
27	23SB	1466	C
27	23SB	1468	A
27	23SB	1469	U
27	23SB	1470	G
27	23SB	1477	C
27	23SB	1486	C
27	23SB	1494	A
27	23SB	1499	A
27	23SB	1500	G
27	23SB	1502	C
27	23SB	1508	C

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Mol	Chain	Res	Type
27	23SB	1510	A
27	23SB	1511	G
27	23SB	1516	G
27	23SB	1521	A
27	23SB	1524	C
27	23SB	1525	G
27	23SB	1526	C
27	23SB	1528	G
27	23SB	1529	G
27	23SB	1531	U
27	23SB	1532	G
27	23SB	1535	A
27	23SB	1536	G
27	23SB	1537	G
27	23SB	1539	A
27	23SB	1542	C
27	23SB	1548	C
27	23SB	1551	C
27	23SB	1554	C
27	23SB	1557	A
27	23SB	1558	C
27	23SB	1559	A
27	23SB	1564	C
27	23SB	1565	U
27	23SB	1577	A
27	23SB	1583	G
27	23SB	1584	U
27	23SB	1586	C
27	23SB	1587	G
27	23SB	1592	A
27	23SB	1593	C
27	23SB	1594	A
27	23SB	1604	A
27	23SB	1605	G
27	23SB	1608	A
27	23SB	1609	G
27	23SB	1610	G
27	23SB	1616	A
27	23SB	1619	A
27	23SB	1628	U
27	23SB	1629	A
27	23SB	1631	G

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Mol	Chain	Res	Type
27	23SB	1635	A
27	23SB	1637	C
27	23SB	1647	C
27	23SB	1657	A
27	23SB	1659	A
27	23SB	1660	C
27	23SB	1667	A
27	23SB	1671	G
27	23SB	1690	C
27	23SB	1698	C
27	23SB	1703	G
27	23SB	1704	A
27	23SB	1724	G
27	23SB	1746	G
27	23SB	1750	A
27	23SB	1751	A
27	23SB	1766	G
27	23SB	1769	G
27	23SB	1770	A
27	23SB	1771	U
27	23SB	1772	G
27	23SB	1776	C
27	23SB	1790	G
27	23SB	1792	G
27	23SB	1794	A
27	23SB	1796	A
27	23SB	1797	G
27	23SB	1798	G
27	23SB	1807	A
27	23SB	1813	U
27	23SB	1814	A
27	23SB	1816	C
27	23SB	1821	A
27	23SB	1825	A
27	23SB	1832	U
27	23SB	1834	C
27	23SB	1835	G
27	23SB	1850	G
27	23SB	1854	U
27	23SB	1863	A
27	23SB	1869	G
27	23SB	1873	G

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Mol	Chain	Res	Type
27	23SB	1880	G
27	23SB	1881	A
27	23SB	1882	A
27	23SB	1892	G
27	23SB	1903	G
27	23SB	1907	C
27	23SB	1913	G
27	23SB	1914	A
27	23SB	1925	A
27	23SB	1931	G
27	23SB	1939	C
27	23SB	1941	A
27	23SB	1954	G
27	23SB	1955	G
27	23SB	1956	U
27	23SB	1959	C
27	23SB	1961	A
27	23SB	1962	A
27	23SB	1963	A
27	23SB	1964	5MU
27	23SB	1973	G
27	23SB	1980	U
27	23SB	1981	U
27	23SB	1985	A
27	23SB	1988	U
27	23SB	1989	G
27	23SB	1992	C
27	23SB	1995	A
27	23SB	1996	A
27	23SB	1997	A
27	23SB	2007	C
27	23SB	2018	U
27	23SB	2021	C
27	23SB	2045	A
27	23SB	2048	G
27	23SB	2052	G
27	23SB	2056	A
27	23SB	2058	A
27	23SB	2068	C
27	23SB	2076	A
27	23SB	2079	A
27	23SB	2080	C

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Mol	Chain	Res	Type
27	23SB	2081	G
27	23SB	2084	A
27	23SB	2085	A
27	23SB	2086	G
27	23SB	2087	A
27	23SB	2094	G
27	23SB	2118	G
27	23SB	2124	U
27	23SB	2125	G
27	23SB	2126	G
27	23SB	2133	C
27	23SB	2135	G
27	23SB	2136	C
27	23SB	2138	U
27	23SB	2139	A
27	23SB	2140	G
27	23SB	2141	G
27	23SB	2142	A
27	23SB	2143	U
27	23SB	2148	G
27	23SB	2151	A
27	23SB	2152	G
27	23SB	2153	C
27	23SB	2156	G
27	23SB	2157	U
27	23SB	2158	G
27	23SB	2161	C
27	23SB	2172	G
27	23SB	2173	G
27	23SB	2174	G
27	23SB	2188	C
27	23SB	2191	G
27	23SB	2194	A
27	23SB	2196	A
27	23SB	2197	U
27	23SB	2198	A
27	23SB	2199	C
27	23SB	2203	C
27	23SB	2214	U
27	23SB	2215	G
27	23SB	2217	G
27	23SB	2219	G

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Mol	Chain	Res	Type
27	23SB	2223	A
27	23SB	2230	G
27	23SB	2231	G
27	23SB	2232	A
27	23SB	2233	U
27	23SB	2234	G
27	23SB	2236	G
27	23SB	2240	A
27	23SB	2241	C
27	23SB	2253	G
27	23SB	2254	G
27	23SB	2260	U
27	23SB	2261	G
27	23SB	2267	G
27	23SB	2282	A
27	23SB	2288	A
27	23SB	2290	C
27	23SB	2295	G
27	23SB	2298	C
27	23SB	2302	A
27	23SB	2303	A
27	23SB	2304	G
27	23SB	2319	G
27	23SB	2320	A
27	23SB	2322	G
27	23SB	2323	G
27	23SB	2325	A
27	23SB	2327	U
27	23SB	2329	C
27	23SB	2334	G
27	23SB	2335	A
27	23SB	2336	G
27	23SB	2340	G
27	23SB	2349	G
27	23SB	2351	A
27	23SB	2361	A
27	23SB	2362	C
27	23SB	2364	G
27	23SB	2365	C
27	23SB	2387	G
27	23SB	2394	G
27	23SB	2398	G

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Mol	Chain	Res	Type
27	23SB	2400	C
27	23SB	2406	G
27	23SB	2407	A
27	23SB	2417	C
27	23SB	2418	C
27	23SB	2421	U
27	23SB	2426	A
27	23SB	2429	G
27	23SB	2438	U
27	23SB	2439	C
27	23SB	2440	A
27	23SB	2441	A
27	23SB	2444	G
27	23SB	2445	A
27	23SB	2450	A
27	23SB	2454	A
27	23SB	2455	C
27	23SB	2456	C
27	23SB	2462	G
27	23SB	2463	A
27	23SB	2475	U
27	23SB	2484	A
27	23SB	2485	G
27	23SB	2487	G
27	23SB	2488	U
27	23SB	2489	C
27	23SB	2490	C
27	23SB	2491	A
27	23SB	2493	A
27	23SB	2497	G
27	23SB	2509	G
27	23SB	2517	G
27	23SB	2520	G
27	23SB	2521	U
27	23SB	2522	C
27	23SB	2533	A
27	23SB	2534	U
27	23SB	2539	G
27	23SB	2540	G
27	23SB	2544	G
27	23SB	2550	G
27	23SB	2557	A

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Mol	Chain	Res	Type
27	23SB	2558	G
27	23SB	2567	OMU
27	23SB	2569	U
27	23SB	2581	A
27	23SB	2582	G
27	23SB	2584	G
27	23SB	2588	C
27	23SB	2591	G
27	23SB	2600	U
27	23SB	2601	C
27	23SB	2617	A
27	23SB	2618	G
27	23SB	2624	U
27	23SB	2625	C
27	23SB	2626	U
27	23SB	2627	C
27	23SB	2644	A
27	23SB	2645	G
27	23SB	2660	G
27	23SB	2661	C
27	23SB	2669	A
27	23SB	2670	G
27	23SB	2680	A
27	23SB	2681	C
27	23SB	2687	G
27	23SB	2688	G
27	23SB	2694	A
27	23SB	2704	U
27	23SB	2705	C
27	23SB	2706	C
27	23SB	2717	U
27	23SB	2718	C
27	23SB	2722	G
27	23SB	2727	U
27	23SB	2728	A
27	23SB	2729	A
27	23SB	2742	U
27	23SB	2748	G
27	23SB	2749	A
27	23SB	2750	A
27	23SB	2757	A
27	23SB	2760	G

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Mol	Chain	Res	Type
27	23SB	2764	A
27	23SB	2766	A
27	23SB	2767	G
27	23SB	2768	C
27	23SB	2770	U
27	23SB	2773	A
27	23SB	2777	G
27	23SB	2778	G
27	23SB	2780	A
27	23SB	2781	A
27	23SB	2782	G
27	23SB	2786	G
27	23SB	2793	G
27	23SB	2794	A
27	23SB	2795	U
27	23SB	2806	A
27	23SB	2807	C
27	23SB	2810	C
27	23SB	2811	G
27	23SB	2812	U
27	23SB	2821	U
27	23SB	2826	A
27	23SB	2831	G
27	23SB	2833	A
27	23SB	2834	A
27	23SB	2839	A
27	23SB	2840	C
27	23SB	2846	G
27	23SB	2847	G
27	23SB	2848	A
27	23SB	2873	A
27	23SB	2885	G
27	23SB	2886	A
27	23SB	2892	C
27	23SB	2893	C
27	23SB	2899	G
27	23SB	2904	A
27	23SB	2906	G
27	23SB	2907	U
27	23SB	2908	C
27	23SB	2909	U
27	23SB	2914	C

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Mol	Chain	Res	Type
28	5SB	5	C
28	5SB	9	G
28	5SB	10	U
28	5SB	14	C
28	5SB	15	A
28	5SB	16	U
28	5SB	17	A
28	5SB	18	G
28	5SB	24	U
28	5SB	26	G
28	5SB	27	A
28	5SB	33	C
28	5SB	37	U
28	5SB	43	U
28	5SB	44	C
28	5SB	47	A
28	5SB	55	A
28	5SB	58	G
28	5SB	68	A
28	5SB	69	G
28	5SB	75	A
28	5SB	83	G
28	5SB	87	G
28	5SB	90	C
28	5SB	91	G
28	5SB	92	A
28	5SB	93	C
28	5SB	98	U
28	5SB	99	G
28	5SB	104	A
28	5SB	110	U
28	5SB	112	G
28	5SB	115	G
28	5SB	121	G

All (250) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	16SA	677	G
1	16SA	696	A
1	16SA	706	A
1	16SA	731	U

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Mol	Chain	Res	Type
1	16SA	758	A
1	16SA	836	G
1	16SA	891	A
1	16SA	907	G
1	16SA	969	C
1	16SA	1007	C
1	16SA	1053	A
1	16SA	1063	C
1	16SA	1069	G
1	16SA	1070	U
1	16SA	1111	G
1	16SA	1114	G
1	16SA	1115	G
1	16SA	1138	A
1	16SA	1159	G
1	16SA	1161	A
1	16SA	1189	U
1	16SA	1315	U
1	16SA	1330	C
1	16SA	1332	G
1	16SA	1377	C
1	16SA	1381	G
1	16SA	1422	U
1	16SA	1441	C
1	16SA	1536	A
1	16SA	1615	U
1	16SA	1649	U
1	16SA	1651	C
1	16SA	1753	U
1	16SA	1767	G
1	16SA	1773	C
1	16SA	1785	A
1	16SA	1810	A
1	16SA	1827	C
1	16SA	1838	U
1	16SA	1912	A
1	16SA	1927	G
1	16SA	1928	U
1	16SA	1932	G
1	16SA	1946	A
1	16SA	1949	C
1	16SA	2078	C

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Mol	Chain	Res	Type
1	16SA	2126	A
22	ASIA	10	G
23	PSIA	46	G7M
23	PSIA	60	U
24	ESIA	9	A
24	ESIA	45	U
25	MRNA	44	U
25	MRNA	56	U
26	TRNA	20	H2U
26	TRNA	34	G
26	TRNA	65	G
27	23SA	34	C
27	23SA	186	A
27	23SA	218	A
27	23SA	219	A
27	23SA	355	A
27	23SA	400	G
27	23SA	423	U
27	23SA	432	C
27	23SA	530	A
27	23SA	539	G
27	23SA	555	A
27	23SA	557	G
27	23SA	580	U
27	23SA	612	C
27	23SA	672	C
27	23SA	680	A
27	23SA	700	G
27	23SA	734	A
27	23SA	823	A
27	23SA	895	C
27	23SA	896	U
27	23SA	929	G
27	23SA	992	A
27	23SA	1070	G
27	23SA	1074	U
27	23SA	1105	A
27	23SA	1133	A
27	23SA	1157	C
27	23SA	1189	U
27	23SA	1226	C
27	23SA	1252	A

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Mol	Chain	Res	Type
27	23SA	1258	A
27	23SA	1469	U
27	23SA	1476	A
27	23SA	1608	A
27	23SA	1657	A
27	23SA	1695	G
27	23SA	1702	A
27	23SA	1703	G
27	23SA	1744	C
27	23SA	1770	A
27	23SA	1833	G
27	23SA	1853	A
27	23SA	1924	G
27	23SA	1964	5MU
27	23SA	2017	G
27	23SA	2085	A
27	23SA	2149	G
27	23SA	2192	U
27	23SA	2231	G
27	23SA	2322	G
27	23SA	2335	A
27	23SA	2361	A
27	23SA	2420	G
27	23SA	2421	U
27	23SA	2437	A
27	23SA	2441	A
27	23SA	2454	A
27	23SA	2496	G
27	23SA	2533	A
27	23SA	2581	A
27	23SA	2653	G
27	23SA	2660	G
27	23SA	2696	C
27	23SA	2727	U
27	23SA	2742	U
27	23SA	2767	G
27	23SA	2772	U
27	23SA	2806	A
27	23SA	2845	U
28	5SA	68	A
1	16SB	728	U
1	16SB	754	G

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Mol	Chain	Res	Type
1	16SB	758	A
1	16SB	821	G
1	16SB	853	C
1	16SB	855	U
1	16SB	891	A
1	16SB	920	A
1	16SB	969	C
1	16SB	1053	A
1	16SB	1063	C
1	16SB	1070	U
1	16SB	1138	A
1	16SB	1161	A
1	16SB	1189	U
1	16SB	1315	U
1	16SB	1316	A
1	16SB	1330	C
1	16SB	1332	G
1	16SB	1377	C
1	16SB	1381	G
1	16SB	1422	U
1	16SB	1495	A
1	16SB	1536	A
1	16SB	1583	U
1	16SB	1615	U
1	16SB	1651	C
1	16SB	1677	U
1	16SB	1754	U
1	16SB	1765	C
1	16SB	1785	A
1	16SB	1817	G
1	16SB	1827	C
1	16SB	1867	U
1	16SB	1883	A
1	16SB	1907	A
1	16SB	1908	U
1	16SB	1912	A
1	16SB	1924	C
1	16SB	1927	G
1	16SB	1932	G
1	16SB	1946	A
1	16SB	1949	C
1	16SB	1963	C

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Mol	Chain	Res	Type
1	16SB	1973	A
1	16SB	2078	C
57	ASIB	10	G
57	ASIB	69	G
23	PSIB	8	4SU
23	PSIB	60	U
24	ESIB	47	U
24	ESIB	58	A
25	MRNB	53	U
25	MRNB	56	U
27	23SB	34	C
27	23SB	48	A
27	23SB	49	U
27	23SB	126	C
27	23SB	195	G
27	23SB	301	A
27	23SB	302	C
27	23SB	303	A
27	23SB	319	A
27	23SB	355	A
27	23SB	431	U
27	23SB	557	G
27	23SB	612	C
27	23SB	680	A
27	23SB	700	G
27	23SB	823	A
27	23SB	876	U
27	23SB	895	C
27	23SB	926	U
27	23SB	935	C
27	23SB	937	C
27	23SB	941	C
27	23SB	1133	A
27	23SB	1191	A
27	23SB	1220	G
27	23SB	1252	A
27	23SB	1258	A
27	23SB	1349	U
27	23SB	1350	A
27	23SB	1476	A
27	23SB	1608	A
27	23SB	1657	A

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Mol	Chain	Res	Type
27	23SB	1702	A
27	23SB	1703	G
27	23SB	1745	G
27	23SB	1814	A
27	23SB	1853	A
27	23SB	1880	G
27	23SB	1924	G
27	23SB	1940	5MU
27	23SB	1955	G
27	23SB	2017	G
27	23SB	2087	A
27	23SB	2135	G
27	23SB	2170	C
27	23SB	2216	G
27	23SB	2230	G
27	23SB	2231	G
27	23SB	2335	A
27	23SB	2350	A
27	23SB	2437	A
27	23SB	2454	A
27	23SB	2462	G
27	23SB	2496	G
27	23SB	2617	A
27	23SB	2660	G
27	23SB	2704	U
27	23SB	2741	A
27	23SB	2742	U
27	23SB	2748	G
27	23SB	2772	U
27	23SB	2792	A
27	23SB	2806	A
27	23SB	2872	G
28	5SB	13	C
28	5SB	16	U
28	5SB	26	G
28	5SB	68	A

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

87 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	$\#\|Z\| > 2$
1	MA6	16SA	2142	1	18,26,27	1.01	2 (11%)	19,38,41	2.85	2 (10%)
23	G7M	PSIB	46	23	20,26,27	4.78	5 (25%)	17,39,42	1.13	1 (5%)
26	MIA	TRNA	37	26,27	24,31,32	2.59	5 (20%)	26,44,47	3.55	8 (30%)
26	PSU	TRNA	55	26	18,21,22	1.09	1 (5%)	22,30,33	1.77	4 (18%)
1	MA6	16SB	2142	1	18,26,27	0.99	2 (11%)	19,38,41	2.80	2 (10%)
23	4SU	PSIB	8	23,58	18,21,22	1.87	5 (27%)	26,30,33	2.91	6 (23%)
27	2MA	23SB	2518	60,58,27	19,25,26	3.00	5 (26%)	21,37,40	2.04	4 (19%)
26	H2U	TRNA	16	26	18,21,22	2.02	4 (22%)	21,30,33	2.07	5 (23%)
27	PSU	23SA	2620	27	18,21,22	1.14	1 (5%)	22,30,33	1.82	4 (18%)
24	MIA	ESIB	37	24	24,31,32	2.43	4 (16%)	26,44,47	4.25	11 (42%)
27	PSU	23SA	1942	27	18,21,22	1.03	1 (5%)	22,30,33	1.79	4 (18%)
22	4SU	ASIA	8	22	18,21,22	1.81	4 (22%)	26,30,33	2.36	5 (19%)
1	2MG	16SA	1834	60,1	18,26,27	2.63	7 (38%)	16,38,41	1.33	3 (18%)
1	5MC	16SB	2032	1	18,22,23	3.87	7 (38%)	26,32,35	0.94	2 (7%)
23	3AU	PSIA	47	23	24,28,29	2.80	8 (33%)	33,40,43	1.54	6 (18%)
1	5MC	16SA	2032	1	18,22,23	3.82	7 (38%)	26,32,35	0.89	2 (7%)
27	PSU	23SB	2620	27	18,21,22	1.18	1 (5%)	22,30,33	1.76	3 (13%)
23	PSU	PSIB	32	23	18,21,22	1.03	1 (5%)	22,30,33	1.69	4 (18%)
27	OMU	23SA	2567	58,27	19,22,23	2.93	8 (42%)	26,31,34	1.85	5 (19%)
27	OMG	23SA	2266	60,23,27	18,26,27	5.17	9 (50%)	19,38,41	3.73	7 (36%)
26	PSU	TRNA	39	26	18,21,22	1.14	1 (5%)	22,30,33	1.80	5 (22%)
27	OMU	23SB	2567	58,27	19,22,23	2.98	8 (42%)	26,31,34	1.83	5 (19%)
23	PSU	PSIA	55	23	18,21,22	1.21	1 (5%)	22,30,33	1.65	4 (18%)
1	5MC	16SA	2028	1	18,22,23	3.81	7 (38%)	26,32,35	1.09	1 (3%)
26	PSU	TRNA	32	26	18,21,22	1.14	1 (5%)	22,30,33	1.72	4 (18%)
57	PSU	ASIB	39	57	18,21,22	1.11	1 (5%)	22,30,33	1.68	4 (18%)
26	H2U	TRNA	20	28,26	18,21,22	2.27	4 (22%)	21,30,33	1.84	5 (23%)
22	G7M	ASIA	46	22	20,26,27	4.73	5 (25%)	17,39,42	1.06	1 (5%)
27	OMC	23SA	1945	60,27	19,22,23	1.73	4 (21%)	26,31,34	0.82	0
1	5MC	16SA	1590	1	18,22,23	3.74	7 (38%)	26,32,35	1.07	1 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
27	PSU	23SB	1936	27	18,21,22	1.14	1 (5%)	22,30,33	1.52	3 (13%)
27	5MC	23SB	1987	60,27	18,22,23	3.79	7 (38%)	26,32,35	0.92	1 (3%)
23	MIA	PSIB	37	23	24,31,32	2.33	4 (16%)	26,44,47	2.83	11 (42%)
22	PSU	ASIA	32	22	18,21,22	1.11	1 (5%)	22,30,33	1.53	4 (18%)
22	5MU	ASIA	54	22	19,22,23	3.84	5 (26%)	28,32,35	3.25	10 (35%)
27	OMG	23SB	2266	60,23,27	18,26,27	5.25	9 (50%)	19,38,41	3.80	7 (36%)
1	G7M	16SA	1156	60,1	20,26,27	4.72	6 (30%)	17,39,42	1.05	1 (5%)
1	M2G	16SB	1589	1	20,27,28	3.92	7 (35%)	22,40,43	1.24	4 (18%)
1	G7M	16SB	1156	60,1	20,26,27	4.73	5 (25%)	17,39,42	1.07	1 (5%)
23	PSU	PSIA	39	23	18,21,22	1.06	1 (5%)	22,30,33	1.65	3 (13%)
27	5MC	23SB	1967	27	18,22,23	3.81	7 (38%)	26,32,35	1.06	3 (11%)
1	2MG	16SB	1834	1	18,26,27	2.71	7 (38%)	16,38,41	1.35	4 (25%)
1	UR3	16SB	2121	1	19,22,23	2.86	7 (36%)	26,32,35	1.46	3 (11%)
12	0TD	S12A	89	12	7,9,10	1.48	1 (14%)	6,11,13	1.87	1 (16%)
23	5MU	PSIB	54	23	19,22,23	3.90	5 (26%)	28,32,35	3.07	9 (32%)
57	PSU	ASIB	32	57	18,21,22	1.02	1 (5%)	22,30,33	1.68	4 (18%)
1	4OC	16SB	2030	1,58	20,23,24	2.85	8 (40%)	26,32,35	1.41	4 (15%)
1	5MC	16SB	2028	1	18,22,23	3.80	7 (38%)	26,32,35	1.21	3 (11%)
1	4OC	16SA	2030	1	20,23,24	3.10	8 (40%)	26,32,35	0.88	1 (3%)
24	MIA	ESIA	37	24	24,31,32	2.42	4 (16%)	26,44,47	3.21	9 (34%)
57	MIA	ASIB	37	57	24,31,32	2.32	4 (16%)	26,44,47	3.06	10 (38%)
1	5MC	16SB	2035	1	18,22,23	3.86	7 (38%)	26,32,35	1.10	3 (11%)
27	OMC	23SB	1945	27	19,22,23	1.80	4 (21%)	26,31,34	0.92	1 (3%)
1	5MC	16SB	1590	1	18,22,23	3.84	7 (38%)	26,32,35	1.00	1 (3%)
57	5MU	ASIB	54	57	19,22,23	3.89	5 (26%)	28,32,35	3.16	8 (28%)
23	MIA	PSIA	37	23	24,31,32	2.32	3 (12%)	26,44,47	2.51	10 (38%)
22	PSU	ASIA	55	22	18,21,22	1.04	1 (5%)	22,30,33	1.71	4 (18%)
22	MIA	ASIA	37	22	24,31,32	2.30	4 (16%)	26,44,47	3.21	11 (42%)
27	2MA	23SA	2518	60,27	19,25,26	2.98	5 (26%)	21,37,40	1.88	4 (19%)
23	5MU	PSIA	54	23	19,22,23	3.79	5 (26%)	28,32,35	3.16	7 (25%)
26	4SU	TRNA	8	26	18,21,22	1.79	3 (16%)	26,30,33	2.40	5 (19%)
23	H2U	PSIB	16	23	18,21,22	2.05	4 (22%)	21,30,33	1.86	5 (23%)
27	5MU	23SA	1964	60,27	19,22,23	3.78	5 (26%)	28,32,35	3.39	10 (35%)
27	5MU	23SB	1964	60,27	19,22,23	3.81	5 (26%)	28,32,35	3.29	9 (32%)
1	PSU	16SB	1145	1,58	18,21,22	1.11	1 (5%)	22,30,33	1.67	3 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
27	5MC	23SA	1967	27	18,22,23	3.74	7 (38%)	26,32,35	1.17	1 (3%)
12	0TD	S12B	89	12	7,9,10	1.56	1 (14%)	6,11,13	1.99	2 (33%)
1	PSU	16SA	1145	1,58	18,21,22	1.14	1 (5%)	22,30,33	1.70	4 (18%)
23	G7M	PSIA	46	23	20,26,27	4.69	5 (25%)	17,39,42	1.13	1 (5%)
23	4SU	PSIA	8	23	18,21,22	1.77	3 (16%)	26,30,33	2.51	5 (19%)
26	5MU	TRNA	54	26	19,22,23	3.92	5 (26%)	28,32,35	3.20	9 (32%)
23	3AU	PSIB	47	23	24,28,29	2.84	8 (33%)	33,40,43	1.96	8 (24%)
1	5MC	16SA	2035	1	18,22,23	3.73	7 (38%)	26,32,35	1.07	1 (3%)
27	5MC	23SA	1987	60,27	18,22,23	3.71	7 (38%)	26,32,35	0.96	1 (3%)
23	PSU	PSIA	32	23	18,21,22	1.03	1 (5%)	22,30,33	1.59	3 (13%)
23	H2U	PSIA	16	23	18,21,22	2.01	4 (22%)	21,30,33	2.06	5 (23%)
27	5MU	23SA	1940	27	19,22,23	4.11	5 (26%)	28,32,35	3.47	10 (35%)
27	5MU	23SB	1940	27	19,22,23	3.98	5 (26%)	28,32,35	3.32	9 (32%)
23	PSU	PSIB	39	23	18,21,22	1.11	1 (5%)	22,30,33	1.63	4 (18%)
1	MA6	16SB	2141	1	18,26,27	1.00	1 (5%)	19,38,41	2.40	2 (10%)
22	PSU	ASIA	39	22	18,21,22	1.13	1 (5%)	22,30,33	1.58	3 (13%)
1	MA6	16SA	2141	1	18,26,27	1.01	2 (11%)	19,38,41	2.67	2 (10%)
23	PSU	PSIB	55	23	18,21,22	1.11	1 (5%)	22,30,33	1.67	3 (13%)
27	PSU	23SA	1936	27	18,21,22	1.05	1 (5%)	22,30,33	1.81	4 (18%)
1	UR3	16SA	2121	1	19,22,23	2.81	8 (42%)	26,32,35	1.52	3 (11%)
1	M2G	16SA	1589	1	20,27,28	3.74	7 (35%)	22,40,43	1.55	4 (18%)
27	PSU	23SB	1942	27	18,21,22	1.13	1 (5%)	22,30,33	1.64	4 (18%)

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
1	MA6	16SA	2142	1	-	3/7/29/30	0/3/3/3
23	G7M	PSIB	46	23	-	0/3/25/26	0/3/3/3
26	MIA	TRNA	37	26,27	-	5/11/33/34	0/3/3/3
26	PSU	TRNA	55	26	-	0/7/25/26	0/2/2/2
1	MA6	16SB	2142	1	-	3/7/29/30	0/3/3/3
23	4SU	PSIB	8	23,58	-	2/7/25/26	0/2/2/2
27	2MA	23SB	2518	60,58,27	-	3/3/25/26	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
26	H2U	TRNA	16	26	-	3/7/38/39	0/2/2/2
27	PSU	23SA	2620	27	-	0/7/25/26	0/2/2/2
24	MIA	ESIB	37	24	-	6/11/33/34	0/3/3/3
27	PSU	23SA	1942	27	-	0/7/25/26	0/2/2/2
22	4SU	ASIA	8	22	-	1/7/25/26	0/2/2/2
1	2MG	16SA	1834	60,1	-	0/5/27/28	0/3/3/3
1	5MC	16SB	2032	1	-	0/7/25/26	0/2/2/2
23	3AU	PSIA	47	23	-	7/16/34/35	0/2/2/2
1	5MC	16SA	2032	1	-	0/7/25/26	0/2/2/2
27	PSU	23SB	2620	27	-	0/7/25/26	0/2/2/2
23	PSU	PSIB	32	23	-	0/7/25/26	0/2/2/2
27	OMU	23SA	2567	58,27	-	0/9/27/28	0/2/2/2
27	OMG	23SA	2266	60,23,27	-	1/5/27/28	0/3/3/3
26	PSU	TRNA	39	26	-	0/7/25/26	0/2/2/2
27	OMU	23SB	2567	58,27	-	2/9/27/28	0/2/2/2
23	PSU	PSIA	55	23	-	3/7/25/26	0/2/2/2
1	5MC	16SA	2028	1	-	0/7/25/26	0/2/2/2
26	PSU	TRNA	32	26	-	0/7/25/26	0/2/2/2
57	PSU	ASIB	39	57	-	0/7/25/26	0/2/2/2
26	H2U	TRNA	20	28,26	-	5/7/38/39	0/2/2/2
22	G7M	ASIA	46	22	-	2/3/25/26	0/3/3/3
27	OMC	23SA	1945	60,27	-	1/9/27/28	0/2/2/2
1	5MC	16SA	1590	1	-	0/7/25/26	0/2/2/2
27	PSU	23SB	1936	27	-	0/7/25/26	0/2/2/2
27	5MC	23SB	1987	60,27	-	0/7/25/26	0/2/2/2
23	MIA	PSIB	37	23	-	6/11/33/34	0/3/3/3
22	PSU	ASIA	32	22	-	0/7/25/26	0/2/2/2
22	5MU	ASIA	54	22	-	0/7/25/26	0/2/2/2
27	OMG	23SB	2266	60,23,27	-	1/5/27/28	0/3/3/3
1	G7M	16SA	1156	60,1	-	2/3/25/26	0/3/3/3
1	M2G	16SB	1589	1	-	0/7/29/30	0/3/3/3
1	G7M	16SB	1156	60,1	-	2/3/25/26	0/3/3/3
23	PSU	PSIA	39	23	-	0/7/25/26	0/2/2/2
27	5MC	23SB	1967	27	-	0/7/25/26	0/2/2/2
1	2MG	16SB	1834	1	-	2/5/27/28	0/3/3/3
1	UR3	16SB	2121	1	-	0/7/25/26	0/2/2/2
12	0TD	S12A	89	12	-	2/7/12/14	-
23	5MU	PSIB	54	23	-	2/7/25/26	0/2/2/2
57	PSU	ASIB	32	57	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	4OC	16SB	2030	1,58	-	2/9/29/30	0/2/2/2
1	5MC	16SB	2028	1	-	0/7/25/26	0/2/2/2
1	4OC	16SA	2030	1	-	2/9/29/30	0/2/2/2
24	MIA	ESIA	37	24	-	7/11/33/34	0/3/3/3
57	MIA	ASIB	37	57	-	3/11/33/34	0/3/3/3
1	5MC	16SB	2035	1	-	0/7/25/26	0/2/2/2
27	OMC	23SB	1945	27	-	1/9/27/28	0/2/2/2
1	5MC	16SB	1590	1	-	0/7/25/26	0/2/2/2
57	5MU	ASIB	54	57	-	0/7/25/26	0/2/2/2
23	MIA	PSIA	37	23	-	5/11/33/34	0/3/3/3
22	PSU	ASIA	55	22	-	3/7/25/26	0/2/2/2
22	MIA	ASIA	37	22	-	6/11/33/34	0/3/3/3
27	2MA	23SA	2518	60,27	-	1/3/25/26	0/3/3/3
23	5MU	PSIA	54	23	-	0/7/25/26	0/2/2/2
26	4SU	TRNA	8	26	-	2/7/25/26	0/2/2/2
23	H2U	PSIB	16	23	-	0/7/38/39	0/2/2/2
27	5MU	23SA	1964	60,27	-	2/7/25/26	0/2/2/2
27	5MU	23SB	1964	60,27	-	2/7/25/26	0/2/2/2
1	PSU	16SB	1145	1,58	-	0/7/25/26	0/2/2/2
27	5MC	23SA	1967	27	-	0/7/25/26	0/2/2/2
12	0TD	S12B	89	12	-	3/7/12/14	-
1	PSU	16SA	1145	1,58	-	0/7/25/26	0/2/2/2
23	G7M	PSIA	46	23	-	2/3/25/26	0/3/3/3
23	4SU	PSIA	8	23	-	0/7/25/26	0/2/2/2
26	5MU	TRNA	54	26	-	2/7/25/26	0/2/2/2
23	3AU	PSIB	47	23	-	7/16/34/35	0/2/2/2
1	5MC	16SA	2035	1	-	0/7/25/26	0/2/2/2
27	5MC	23SA	1987	60,27	-	0/7/25/26	0/2/2/2
23	PSU	PSIA	32	23	-	0/7/25/26	0/2/2/2
23	H2U	PSIA	16	23	-	0/7/38/39	0/2/2/2
27	5MU	23SA	1940	27	-	3/7/25/26	0/2/2/2
27	5MU	23SB	1940	27	-	0/7/25/26	0/2/2/2
23	PSU	PSIB	39	23	-	0/7/25/26	0/2/2/2
1	MA6	16SB	2141	1	-	0/7/29/30	0/3/3/3
22	PSU	ASIA	39	22	-	0/7/25/26	0/2/2/2
1	MA6	16SA	2141	1	-	0/7/29/30	0/3/3/3
23	PSU	PSIB	55	23	-	0/7/25/26	0/2/2/2
27	PSU	23SA	1936	27	-	0/7/25/26	0/2/2/2
1	UR3	16SA	2121	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	M2G	16SA	1589	1	-	0/7/29/30	0/3/3/3
27	PSU	23SB	1942	27	-	0/7/25/26	0/2/2/2

All (372) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	PSIB	46	G7M	C8-N7	17.49	1.65	1.33
22	ASIA	46	G7M	C8-N7	17.30	1.64	1.33
1	16SB	1156	G7M	C8-N7	17.25	1.64	1.33
23	PSIA	46	G7M	C8-N7	17.15	1.64	1.33
1	16SA	1156	G7M	C8-N7	17.09	1.64	1.33
27	23SB	2266	OMG	C8-N7	-15.02	1.09	1.35
27	23SA	2266	OMG	C8-N7	-14.83	1.09	1.35
27	23SA	1940	5MU	C2-N1	13.35	1.59	1.38
1	16SB	1589	M2G	C2-N3	13.00	1.46	1.30
27	23SB	1940	5MU	C2-N1	12.81	1.59	1.38
26	TRNA	54	5MU	C2-N1	12.72	1.58	1.38
23	PSIB	54	5MU	C2-N1	12.71	1.58	1.38
57	ASIB	54	5MU	C2-N1	12.58	1.58	1.38
27	23SB	1964	5MU	C2-N1	12.22	1.58	1.38
23	PSIA	54	5MU	C2-N1	12.17	1.58	1.38
22	ASIA	54	5MU	C2-N1	12.10	1.57	1.38
1	16SA	1589	M2G	C2-N3	12.04	1.45	1.30
27	23SA	1964	5MU	C2-N1	11.99	1.57	1.38
1	16SB	2035	5MC	C6-C5	9.79	1.50	1.34
1	16SB	2032	5MC	C6-C5	9.64	1.50	1.34
27	23SB	1987	5MC	C6-C5	9.59	1.50	1.34
27	23SB	2266	OMG	C4-N3	9.57	1.60	1.37
1	16SA	2028	5MC	C6-C5	9.54	1.50	1.34
27	23SA	1987	5MC	C6-C5	9.54	1.50	1.34
1	16SB	1590	5MC	C6-C5	9.43	1.50	1.34
1	16SA	1590	5MC	C6-C5	9.42	1.50	1.34
1	16SA	2032	5MC	C6-C5	9.39	1.50	1.34
27	23SB	1967	5MC	C6-C5	9.39	1.50	1.34
1	16SA	2035	5MC	C6-C5	9.38	1.50	1.34
1	16SB	2028	5MC	C6-C5	9.36	1.50	1.34
27	23SA	2266	OMG	C4-N3	9.32	1.60	1.37
27	23SB	2266	OMG	C6-N1	-9.19	1.24	1.37
27	23SA	1967	5MC	C6-C5	9.10	1.49	1.34
27	23SA	2266	OMG	C6-N1	-9.05	1.24	1.37
23	PSIB	47	3AU	C2-N1	8.73	1.51	1.38
24	ESIB	37	MIA	C13-C14	8.60	1.57	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	ASIB	37	MIA	C13-C14	8.48	1.56	1.32
23	PSIB	37	MIA	C13-C14	8.47	1.56	1.32
24	ESIA	37	MIA	C13-C14	8.45	1.56	1.32
23	PSIA	37	MIA	C13-C14	8.42	1.56	1.32
26	TRNA	37	MIA	C13-C14	8.41	1.56	1.32
22	ASIA	37	MIA	C13-C14	8.41	1.56	1.32
27	23SB	2518	2MA	C4-N3	8.18	1.48	1.35
23	PSIA	47	3AU	C2-N1	8.02	1.50	1.38
27	23SA	2518	2MA	C4-N3	7.98	1.48	1.35
23	PSIB	46	G7M	C5-C4	-7.80	1.23	1.39
1	16SA	1156	G7M	C5-C4	-7.72	1.23	1.39
1	16SA	1156	G7M	C8-N9	7.65	1.47	1.33
1	16SB	1156	G7M	C5-C4	-7.61	1.23	1.39
1	16SB	1156	G7M	C8-N9	7.43	1.46	1.33
22	ASIA	46	G7M	C8-N9	7.42	1.46	1.33
22	ASIA	46	G7M	C5-C4	-7.40	1.24	1.39
1	16SB	1590	5MC	C4-N3	7.37	1.46	1.34
23	PSIB	46	G7M	C8-N9	7.37	1.46	1.33
1	16SA	2028	5MC	C4-N3	7.34	1.46	1.34
1	16SB	2121	UR3	C2-N1	7.31	1.49	1.38
1	16SA	2121	UR3	C2-N1	7.31	1.49	1.38
27	23SA	1967	5MC	C4-N3	7.30	1.46	1.34
23	PSIA	46	G7M	C5-C4	-7.30	1.24	1.39
23	PSIA	46	G7M	C8-N9	7.26	1.46	1.33
1	16SB	2032	5MC	C4-N3	7.25	1.46	1.34
1	16SB	1589	M2G	C2-N2	7.20	1.49	1.35
1	16SB	2028	5MC	C4-N3	7.20	1.46	1.34
1	16SA	2032	5MC	C4-N3	7.19	1.46	1.34
27	23SB	1967	5MC	C4-N3	7.18	1.46	1.34
27	23SA	2266	OMG	C5-C4	7.13	1.61	1.43
1	16SA	1589	M2G	C2-N2	7.12	1.48	1.35
27	23SB	2266	OMG	C5-C4	7.10	1.61	1.43
1	16SA	1590	5MC	C4-N3	7.04	1.46	1.34
26	TRNA	20	H2U	C2-N1	7.02	1.45	1.35
1	16SA	2030	4OC	C4-N3	7.01	1.45	1.32
1	16SB	2035	5MC	C4-N3	6.93	1.45	1.34
27	23SB	2567	OMU	C2-N3	6.91	1.50	1.38
27	23SB	1987	5MC	C4-N3	6.90	1.45	1.34
27	23SA	2567	OMU	C2-N1	6.86	1.49	1.38
27	23SA	1987	5MC	C4-N3	6.67	1.45	1.34
27	23SB	1967	5MC	C2-N3	6.65	1.49	1.36
1	16SA	2035	5MC	C4-N3	6.65	1.45	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	16SA	2032	5MC	C2-N3	6.65	1.49	1.36
27	23SA	2567	OMU	C2-N3	6.58	1.49	1.38
1	16SB	2032	5MC	C2-N3	6.58	1.49	1.36
1	16SB	1590	5MC	C2-N3	6.55	1.49	1.36
1	16SA	2028	5MC	C2-N3	6.50	1.49	1.36
27	23SB	1940	5MU	C4-N3	-6.48	1.26	1.38
27	23SA	1940	5MU	C4-N3	-6.47	1.26	1.38
1	16SB	2121	UR3	C6-C5	6.44	1.50	1.35
23	PSIA	54	5MU	C4-N3	-6.42	1.26	1.38
1	16SB	2028	5MC	C2-N3	6.41	1.49	1.36
27	23SB	2567	OMU	C2-N1	6.40	1.48	1.38
1	16SB	2035	5MC	C2-N3	6.39	1.49	1.36
27	23SA	1964	5MU	C4-N3	-6.38	1.27	1.38
27	23SB	1964	5MU	C4-N3	-6.38	1.27	1.38
26	TRNA	54	5MU	C4-N3	-6.36	1.27	1.38
1	16SB	1834	2MG	C2-N2	6.35	1.47	1.33
27	23SA	1967	5MC	C2-N3	6.34	1.49	1.36
23	PSIA	47	3AU	C2-N3	6.32	1.49	1.38
1	16SA	2121	UR3	C6-C5	6.30	1.49	1.35
22	ASIA	54	5MU	C4-N3	-6.28	1.27	1.38
23	PSIA	47	3AU	C6-C5	6.27	1.49	1.35
23	PSIB	47	3AU	C6-C5	6.26	1.49	1.35
1	16SA	1834	2MG	C2-N2	6.22	1.47	1.33
1	16SA	1590	5MC	C2-N3	6.21	1.49	1.36
1	16SA	2030	4OC	C6-C5	6.21	1.49	1.35
27	23SB	1987	5MC	C2-N3	6.19	1.48	1.36
27	23SA	1987	5MC	C2-N3	6.18	1.48	1.36
1	16SA	2035	5MC	C2-N3	6.17	1.48	1.36
23	PSIB	54	5MU	C4-N3	-6.14	1.27	1.38
1	16SB	2030	4OC	C4-N3	6.13	1.43	1.32
27	23SA	1940	5MU	C6-N1	6.09	1.48	1.38
57	ASIB	54	5MU	C4-N3	-6.03	1.27	1.38
1	16SA	2030	4OC	C2-N3	5.96	1.48	1.36
27	23SB	2518	2MA	C2-N1	5.96	1.44	1.34
27	23SA	2518	2MA	C2-N1	5.90	1.44	1.34
1	16SB	2030	4OC	C6-C5	5.88	1.48	1.35
24	ESIA	37	MIA	C6-N6	5.87	1.45	1.34
23	PSIB	54	5MU	C2-N3	5.82	1.48	1.38
57	ASIB	54	5MU	C2-N3	5.81	1.48	1.38
23	PSIA	16	H2U	C2-N1	5.81	1.43	1.35
27	23SB	1940	5MU	C6-N1	5.81	1.48	1.38
23	PSIB	16	H2U	C2-N1	5.78	1.43	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	TRNA	37	MIA	C6-N6	5.77	1.45	1.34
57	ASIB	54	5MU	C6-N1	5.76	1.47	1.38
24	ESIB	37	MIA	C6-N6	5.76	1.45	1.34
23	PSIB	47	3AU	C2-N3	5.75	1.48	1.38
26	TRNA	16	H2U	C2-N1	5.74	1.43	1.35
27	23SA	1940	5MU	C2-N3	5.68	1.48	1.38
1	16SB	1589	M2G	C4-N3	5.66	1.51	1.37
22	ASIA	54	5MU	C6-N1	5.65	1.47	1.38
27	23SB	2567	OMU	C6-C5	5.65	1.48	1.35
27	23SB	1964	5MU	C2-N3	5.63	1.48	1.38
22	ASIA	54	5MU	C2-N3	5.63	1.48	1.38
26	TRNA	54	5MU	C6-N1	5.62	1.47	1.38
27	23SB	1940	5MU	C2-N3	5.60	1.47	1.38
26	TRNA	54	5MU	C2-N3	5.59	1.47	1.38
27	23SA	2567	OMU	C6-C5	5.59	1.48	1.35
23	PSIB	37	MIA	C6-N6	5.58	1.44	1.34
23	PSIB	54	5MU	C6-N1	5.57	1.47	1.38
1	16SB	2121	UR3	C2-N3	5.55	1.49	1.39
23	PSIA	54	5MU	C6-N1	5.44	1.47	1.38
23	PSIA	37	MIA	C6-N6	5.41	1.44	1.34
57	ASIB	37	MIA	C6-N6	5.41	1.44	1.34
27	23SA	2518	2MA	C2-N3	5.37	1.43	1.34
27	23SA	1964	5MU	C6-N1	5.36	1.47	1.38
27	23SA	1964	5MU	C2-N3	5.33	1.47	1.38
26	TRNA	8	4SU	C5-C4	5.30	1.49	1.42
1	16SB	2030	4OC	C2-N3	5.24	1.47	1.36
23	PSIA	54	5MU	C2-N3	5.22	1.47	1.38
22	ASIA	37	MIA	C6-N6	5.21	1.44	1.34
27	23SB	1964	5MU	C6-N1	5.20	1.46	1.38
23	PSIA	8	4SU	C5-C4	5.20	1.49	1.42
22	ASIA	8	4SU	C5-C4	5.16	1.49	1.42
1	16SA	2121	UR3	C2-N3	5.13	1.48	1.39
26	TRNA	37	MIA	C2-S10	5.11	1.80	1.75
1	16SA	1589	M2G	C4-N3	5.07	1.49	1.37
1	16SB	1834	2MG	C4-N3	5.06	1.49	1.37
27	23SB	2518	2MA	C2-N3	5.06	1.43	1.34
22	ASIA	54	5MU	C4-C5	5.05	1.53	1.44
27	23SB	1987	5MC	C4-N4	5.03	1.47	1.34
1	16SB	2032	5MC	C6-N1	5.02	1.46	1.38
1	16SB	1590	5MC	C4-N4	5.02	1.47	1.34
1	16SA	1590	5MC	C4-N4	5.01	1.47	1.34
1	16SA	2028	5MC	C4-N4	5.00	1.47	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	23SB	2518	2MA	C6-N1	4.97	1.42	1.33
27	23SB	1967	5MC	C4-N4	4.96	1.47	1.34
1	16SB	2035	5MC	C4-N4	4.96	1.47	1.34
27	23SA	1967	5MC	C4-N4	4.95	1.47	1.34
1	16SB	2032	5MC	C4-N4	4.95	1.47	1.34
1	16SB	1834	2MG	C2-N1	4.94	1.44	1.36
27	23SA	1964	5MU	C4-C5	4.94	1.53	1.44
27	23SB	1987	5MC	C6-N1	4.91	1.46	1.38
1	16SA	2035	5MC	C6-N1	4.90	1.46	1.38
1	16SA	2035	5MC	C4-N4	4.89	1.46	1.34
27	23SA	1987	5MC	C4-N4	4.88	1.46	1.34
1	16SB	2035	5MC	C6-N1	4.87	1.46	1.38
1	16SA	1834	2MG	C4-N3	4.87	1.49	1.37
27	23SA	2518	2MA	C6-N1	4.86	1.42	1.33
1	16SA	2032	5MC	C6-N1	4.85	1.46	1.38
1	16SB	2028	5MC	C4-N4	4.84	1.46	1.34
27	23SB	1940	5MU	C4-C5	4.83	1.52	1.44
1	16SA	2032	5MC	C4-N4	4.83	1.46	1.34
1	16SB	1590	5MC	C6-N1	4.82	1.46	1.38
26	TRNA	54	5MU	C4-C5	4.78	1.52	1.44
27	23SA	1940	5MU	C4-C5	4.77	1.52	1.44
23	PSIA	54	5MU	C4-C5	4.71	1.52	1.44
27	23SB	1967	5MC	C6-N1	4.71	1.46	1.38
1	16SB	2028	5MC	C2-N1	4.70	1.50	1.40
1	16SA	1834	2MG	C2-N1	4.70	1.44	1.36
27	23SA	1987	5MC	C6-N1	4.69	1.46	1.38
27	23SB	1964	5MU	C4-C5	4.69	1.52	1.44
23	PSIA	46	G7M	C4-N3	4.63	1.48	1.37
23	PSIB	8	4SU	C5-C4	4.62	1.48	1.42
57	ASIB	54	5MU	C4-C5	4.62	1.52	1.44
27	23SA	1967	5MC	C2-N1	4.61	1.50	1.40
1	16SA	2028	5MC	C6-N1	4.58	1.45	1.38
1	16SB	2028	5MC	C6-N1	4.57	1.45	1.38
1	16SB	2035	5MC	C2-N1	4.54	1.49	1.40
1	16SA	1590	5MC	C6-N1	4.52	1.45	1.38
22	ASIA	46	G7M	C4-N3	4.52	1.48	1.37
27	23SB	1967	5MC	C2-N1	4.48	1.49	1.40
23	PSIB	54	5MU	C4-C5	4.42	1.52	1.44
1	16SA	1589	M2G	C2-N1	4.39	1.47	1.36
23	PSIB	46	G7M	C4-N3	4.38	1.48	1.37
1	16SB	2032	5MC	C2-N1	4.35	1.49	1.40
1	16SA	2030	4OC	C4-N4	4.35	1.44	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	16SA	2032	5MC	C2-N1	4.35	1.49	1.40
1	16SB	1156	G7M	C4-N3	4.33	1.47	1.37
1	16SB	1589	M2G	C2-N1	4.32	1.47	1.36
27	23SA	1967	5MC	C6-N1	4.32	1.45	1.38
1	16SA	2035	5MC	C2-N1	4.29	1.49	1.40
27	23SB	1945	OMC	C2-N3	4.29	1.45	1.36
27	23SB	1945	OMC	C4-N4	4.27	1.44	1.33
1	16SB	1590	5MC	C2-N1	4.27	1.49	1.40
27	23SA	1945	OMC	C2-N3	4.25	1.45	1.36
26	TRNA	20	H2U	C2-N3	4.23	1.45	1.38
1	16SA	1156	G7M	C4-N3	4.21	1.47	1.37
27	23SA	1987	5MC	C2-N1	4.19	1.49	1.40
24	ESIB	37	MIA	C2-S10	4.18	1.79	1.75
27	23SB	1987	5MC	C2-N1	4.15	1.49	1.40
23	PSIB	16	H2U	C2-N3	4.13	1.45	1.38
1	16SB	2030	4OC	C2-N1	4.12	1.48	1.40
27	23SB	2567	OMU	C4-N3	4.11	1.45	1.38
26	TRNA	16	H2U	C2-N3	4.10	1.45	1.38
24	ESIA	37	MIA	C2-S10	4.08	1.79	1.75
23	PSIB	8	4SU	C2-N1	4.06	1.45	1.38
27	23SA	1945	OMC	C4-N4	4.04	1.43	1.33
1	16SA	1590	5MC	C2-N1	4.00	1.48	1.40
23	PSIA	55	PSU	C6-C5	3.99	1.40	1.35
1	16SB	2030	4OC	C5-C4	3.98	1.49	1.40
1	16SA	2028	5MC	C2-N1	3.91	1.48	1.40
23	PSIA	16	H2U	C2-N3	3.89	1.44	1.38
27	23SB	1945	OMC	C5-C4	3.89	1.51	1.42
1	16SB	1589	M2G	C5-C6	3.89	1.55	1.47
26	TRNA	32	PSU	C6-C5	3.87	1.39	1.35
1	16SA	1589	M2G	C6-N1	3.87	1.43	1.37
1	16SA	2030	4OC	C5-C4	3.85	1.49	1.40
26	TRNA	39	PSU	C6-C5	3.85	1.39	1.35
22	ASIA	32	PSU	C6-C5	3.84	1.39	1.35
1	16SA	1145	PSU	C6-C5	3.84	1.39	1.35
27	23SB	1936	PSU	C6-C5	3.82	1.39	1.35
1	16SA	1589	M2G	C5-C6	3.80	1.55	1.47
22	ASIA	8	4SU	C2-N1	3.80	1.44	1.38
26	TRNA	8	4SU	C2-N1	3.79	1.44	1.38
27	23SB	1942	PSU	C6-C5	3.78	1.39	1.35
1	16SA	2030	4OC	C2-N1	3.78	1.48	1.40
23	PSIA	37	MIA	C2-S10	3.77	1.78	1.75
1	16SB	1834	2MG	C6-N1	3.76	1.43	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	23SB	2620	PSU	C6-C5	3.75	1.39	1.35
22	ASIA	39	PSU	C6-C5	3.72	1.39	1.35
23	PSIA	8	4SU	C2-N1	3.71	1.44	1.38
23	PSIB	39	PSU	C6-C5	3.71	1.39	1.35
27	23SA	2567	OMU	C4-N3	3.69	1.45	1.38
1	16SB	1589	M2G	C6-N1	3.67	1.43	1.37
23	PSIA	47	3AU	C4-N3	3.65	1.46	1.40
23	PSIB	55	PSU	C6-C5	3.65	1.39	1.35
27	23SA	2266	OMG	C5-C6	-3.64	1.40	1.47
26	TRNA	55	PSU	C6-C5	3.62	1.39	1.35
1	16SB	1145	PSU	C6-C5	3.60	1.39	1.35
22	ASIA	37	MIA	C2-S10	3.60	1.78	1.75
27	23SB	2266	OMG	C5-C6	-3.59	1.40	1.47
23	PSIB	16	H2U	C4-N3	3.57	1.43	1.37
57	ASIB	39	PSU	C6-C5	3.54	1.39	1.35
27	23SA	1945	OMC	C5-C4	3.53	1.51	1.42
57	ASIB	37	MIA	C2-S10	3.52	1.78	1.75
23	PSIB	47	3AU	C4-N3	3.50	1.45	1.40
27	23SA	2620	PSU	C6-C5	3.49	1.39	1.35
22	ASIA	55	PSU	C6-C5	3.48	1.39	1.35
26	TRNA	16	H2U	C4-N3	3.47	1.43	1.37
1	16SA	1834	2MG	C6-N1	3.45	1.43	1.37
26	TRNA	20	H2U	C4-N3	3.45	1.43	1.37
27	23SA	1936	PSU	C6-C5	3.38	1.39	1.35
26	TRNA	37	MIA	C2-N3	3.35	1.39	1.34
23	PSIA	16	H2U	C4-N3	3.34	1.43	1.37
23	PSIA	32	PSU	C6-C5	3.30	1.39	1.35
27	23SA	1942	PSU	C6-C5	3.30	1.39	1.35
1	16SA	1834	2MG	C5-C6	3.28	1.54	1.47
23	PSIA	39	PSU	C6-C5	3.28	1.39	1.35
1	16SB	2030	4OC	C4-N4	3.27	1.42	1.35
1	16SB	1834	2MG	C5-C6	3.27	1.54	1.47
23	PSIB	37	MIA	C2-S10	3.24	1.78	1.75
1	16SB	2035	5MC	O2-C2	-3.24	1.17	1.23
57	ASIB	32	PSU	C6-C5	3.24	1.39	1.35
23	PSIB	8	4SU	C4-N3	3.23	1.41	1.37
23	PSIB	32	PSU	C6-C5	3.16	1.39	1.35
1	16SA	2030	4OC	C6-N1	3.15	1.45	1.38
1	16SA	1590	5MC	O2-C2	-3.14	1.17	1.23
27	23SB	1987	5MC	O2-C2	-3.08	1.18	1.23
23	PSIB	46	G7M	C2-N2	3.06	1.41	1.34
1	16SB	1156	G7M	C2-N2	3.05	1.41	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	ASIA	46	G7M	C2-N2	3.05	1.41	1.34
1	16SA	2035	5MC	O2-C2	-3.04	1.18	1.23
23	PSIA	46	G7M	C2-N2	3.03	1.41	1.34
1	16SA	1156	G7M	C2-N2	3.03	1.41	1.34
1	16SB	2028	5MC	O2-C2	-3.02	1.18	1.23
1	16SB	1590	5MC	O2-C2	-3.02	1.18	1.23
1	16SA	2030	4OC	O2-C2	-2.99	1.18	1.23
1	16SB	2030	4OC	C6-N1	2.99	1.45	1.38
1	16SA	2121	UR3	C6-N1	2.99	1.45	1.38
1	16SA	2028	5MC	O2-C2	-2.96	1.18	1.23
1	16SB	2032	5MC	O2-C2	-2.96	1.18	1.23
1	16SB	2121	UR3	C6-N1	2.93	1.45	1.38
27	23SB	2567	OMU	O4-C4	-2.89	1.18	1.24
23	PSIA	47	3AU	C6-N1	2.88	1.45	1.38
27	23SA	2567	OMU	O4-C4	-2.85	1.19	1.24
1	16SA	1834	2MG	O6-C6	-2.80	1.17	1.23
23	PSIB	47	3AU	C6-N1	2.79	1.44	1.38
1	16SA	2032	5MC	O2-C2	-2.76	1.18	1.23
27	23SB	1967	5MC	O2-C2	-2.76	1.18	1.23
23	PSIA	16	H2U	C6-N1	-2.72	1.42	1.47
27	23SA	2266	OMG	C2-N2	2.72	1.40	1.34
1	16SB	1834	2MG	O6-C6	-2.71	1.17	1.23
27	23SB	2266	OMG	O6-C6	-2.71	1.17	1.23
1	16SA	1834	2MG	C5-C4	-2.71	1.36	1.43
27	23SB	2266	OMG	C2-N3	2.70	1.39	1.33
27	23SB	2266	OMG	C2-N2	2.68	1.40	1.34
22	ASIA	8	4SU	C6-N1	2.66	1.44	1.38
23	PSIA	8	4SU	C6-N1	2.66	1.44	1.38
26	TRNA	8	4SU	C6-N1	2.65	1.44	1.38
27	23SA	2266	OMG	O6-C6	-2.65	1.17	1.23
27	23SA	1967	5MC	O2-C2	-2.64	1.18	1.23
27	23SB	2567	OMU	C6-N1	2.63	1.44	1.38
1	16SA	1589	M2G	C5-C4	-2.62	1.36	1.43
27	23SA	1987	5MC	O2-C2	-2.59	1.18	1.23
26	TRNA	16	H2U	C6-N1	-2.58	1.42	1.47
1	16SB	1834	2MG	C5-C4	-2.58	1.36	1.43
23	PSIB	16	H2U	C6-N1	-2.55	1.42	1.47
27	23SA	2567	OMU	C6-N1	2.52	1.44	1.38
1	16SA	2141	MA6	C5-C4	-2.50	1.34	1.40
23	PSIB	8	4SU	C2-N3	2.50	1.42	1.38
27	23SB	2567	OMU	O2-C2	-2.49	1.18	1.23
27	23SB	2266	OMG	C2-N1	-2.48	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	16SB	2142	MA6	C5-C4	-2.47	1.34	1.40
1	16SA	2142	MA6	C5-C4	-2.46	1.34	1.40
24	ESIB	37	MIA	C6-N1	2.45	1.36	1.32
1	16SB	2030	4OC	O2-C2	-2.45	1.19	1.23
27	23SA	2567	OMU	C5-C4	2.45	1.49	1.43
26	TRNA	20	H2U	C6-N1	-2.44	1.42	1.47
1	16SB	2141	MA6	C5-C4	-2.43	1.34	1.40
27	23SA	2266	OMG	C2-N3	2.41	1.39	1.33
24	ESIA	37	MIA	C6-N1	2.39	1.36	1.32
23	PSIB	47	3AU	O4-C4	-2.38	1.18	1.23
23	PSIB	8	4SU	C6-N1	2.38	1.43	1.38
23	PSIB	47	3AU	C5-C4	2.36	1.49	1.43
27	23SB	2518	2MA	C6-C5	2.33	1.51	1.43
23	PSIA	47	3AU	C5-C4	2.31	1.49	1.43
27	23SB	2567	OMU	C5-C4	2.30	1.48	1.43
23	PSIA	47	3AU	O4-C4	-2.29	1.18	1.23
27	23SA	2567	OMU	O2-C2	-2.28	1.18	1.23
1	16SA	2121	UR3	C5-C4	2.28	1.49	1.43
1	16SA	2121	UR3	O4-C4	-2.25	1.18	1.23
23	PSIB	37	MIA	C6-N1	2.24	1.35	1.32
23	PSIB	47	3AU	O2-C2	-2.22	1.18	1.22
1	16SB	2121	UR3	O4-C4	-2.19	1.18	1.23
22	ASIA	37	MIA	C6-N1	2.18	1.35	1.32
1	16SB	2121	UR3	C5-C4	2.18	1.49	1.43
1	16SB	2121	UR3	C4-N3	2.18	1.45	1.40
1	16SA	1156	G7M	C6-N1	-2.15	1.34	1.37
27	23SA	2266	OMG	C2-N1	-2.15	1.32	1.37
1	16SB	1589	M2G	C5-C4	-2.12	1.37	1.43
27	23SA	1945	OMC	C6-N1	2.12	1.43	1.38
27	23SA	2518	2MA	C5-N7	-2.08	1.32	1.39
23	PSIA	47	3AU	O2-C2	-2.07	1.18	1.22
27	23SB	1945	OMC	C6-N1	2.06	1.43	1.38
1	16SA	2121	UR3	C4-N3	2.05	1.45	1.40
12	S12B	89	0TD	OD1-CG	2.04	1.28	1.22
1	16SA	2141	MA6	C2-N3	2.04	1.35	1.32
1	16SA	2142	MA6	C2-N3	2.04	1.35	1.32
26	TRNA	37	MIA	C8-N7	-2.03	1.31	1.34
1	16SA	2121	UR3	O2-C2	-2.03	1.18	1.22
57	ASIB	37	MIA	C6-N1	2.03	1.35	1.32
1	16SB	2142	MA6	C2-N3	2.02	1.35	1.32
12	S12A	89	0TD	CB-CG	2.00	1.55	1.52
22	ASIA	8	4SU	C2-N3	2.00	1.41	1.38

All (383) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	ESIB	37	MIA	C11-S10-C2	15.35	113.73	102.27
27	23SA	1940	5MU	C5-C4-N3	11.38	125.02	115.31
24	ESIB	37	MIA	C12-C13-C14	-10.88	105.97	127.14
23	PSIA	54	5MU	C5-C4-N3	10.88	124.59	115.31
27	23SA	1964	5MU	C5-C4-N3	10.87	124.58	115.31
24	ESIA	37	MIA	C11-S10-C2	10.71	110.27	102.27
1	16SA	2142	MA6	N1-C6-N6	-10.63	105.87	117.06
57	ASIB	54	5MU	C5-C4-N3	10.54	124.31	115.31
1	16SB	2142	MA6	N1-C6-N6	-10.45	106.06	117.06
22	ASIA	54	5MU	C5-C4-N3	10.45	124.23	115.31
26	TRNA	54	5MU	C5-C4-N3	10.42	124.20	115.31
27	23SB	2266	OMG	C8-N7-C5	10.23	122.48	102.99
27	23SA	2266	OMG	C8-N7-C5	10.15	122.31	102.99
23	PSIB	54	5MU	C5-C4-N3	10.08	123.91	115.31
1	16SA	2141	MA6	N1-C6-N6	-9.95	106.59	117.06
27	23SB	1940	5MU	C5-C4-N3	9.86	123.73	115.31
22	ASIA	37	MIA	C12-C13-C14	-9.71	108.24	127.14
27	23SB	1964	5MU	C5-C4-N3	9.61	123.52	115.31
27	23SB	2266	OMG	C5-C6-N1	9.33	130.42	113.95
23	PSIB	37	MIA	C12-C13-C14	-9.32	109.01	127.14
27	23SA	2266	OMG	C5-C6-N1	8.92	129.70	113.95
26	TRNA	37	MIA	C12-C13-C14	-8.86	109.89	127.14
57	ASIB	37	MIA	C11-S10-C2	8.77	108.81	102.27
23	PSIB	8	4SU	C4-N3-C2	-8.66	118.93	127.34
26	TRNA	37	MIA	C11-S10-C2	8.65	108.73	102.27
57	ASIB	37	MIA	C12-C13-C14	-8.58	110.45	127.14
26	TRNA	37	MIA	C1'-N9-C4	8.57	141.69	126.64
22	ASIA	37	MIA	C11-S10-C2	8.55	108.65	102.27
23	PSIA	8	4SU	C4-N3-C2	-8.50	119.08	127.34
1	16SB	2141	MA6	N1-C6-N6	-8.48	108.14	117.06
26	TRNA	8	4SU	C4-N3-C2	-7.90	119.67	127.34
22	ASIA	8	4SU	C4-N3-C2	-7.69	119.87	127.34
24	ESIA	37	MIA	C12-C13-C14	-7.62	112.31	127.14
27	23SA	1940	5MU	C4-N3-C2	-6.98	118.31	127.35
23	PSIB	8	4SU	C5-C4-S4	-6.95	115.51	124.47
26	TRNA	8	4SU	C5-C4-N3	6.83	121.03	114.69
27	23SA	1964	5MU	C4-N3-C2	-6.82	118.52	127.35
27	23SB	1964	5MU	C6-C5-C4	6.74	123.67	118.03
23	PSIA	37	MIA	C12-C13-C14	-6.74	114.02	127.14
27	23SA	1964	5MU	C5-C6-N1	-6.72	116.43	123.34
27	23SB	1964	5MU	C4-N3-C2	-6.56	118.86	127.35
23	PSIA	16	H2U	C4-N3-C2	-6.53	120.38	125.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	PSIA	54	5MU	C5-C6-N1	-6.44	116.71	123.34
22	ASIA	54	5MU	C4-N3-C2	-6.44	119.02	127.35
23	PSIA	8	4SU	C5-C4-N3	6.35	120.58	114.69
26	TRNA	16	H2U	C4-N3-C2	-6.34	120.53	125.79
27	23SB	1940	5MU	C4-N3-C2	-6.27	119.24	127.35
26	TRNA	54	5MU	C4-N3-C2	-6.18	119.35	127.35
27	23SB	1940	5MU	C6-C5-C4	6.11	123.14	118.03
27	23SB	1964	5MU	C5-C6-N1	-6.10	117.06	123.34
27	23SB	2518	2MA	C2-N3-C4	6.10	120.48	115.52
27	23SB	2266	OMG	O6-C6-N1	-6.08	113.46	120.65
57	ASIB	54	5MU	C4-N3-C2	-6.05	119.52	127.35
27	23SA	1940	5MU	C5-C6-N1	-6.04	117.13	123.34
22	ASIA	8	4SU	C5-C4-N3	6.01	120.27	114.69
27	23SA	1964	5MU	C6-C5-C4	5.99	123.04	118.03
27	23SA	1940	5MU	C6-C5-C4	5.97	123.02	118.03
27	23SA	2567	OMU	C4-N3-C2	-5.96	118.72	126.58
22	ASIA	54	5MU	C5-C6-N1	-5.95	117.21	123.34
23	PSIA	54	5MU	C4-N3-C2	-5.89	119.73	127.35
1	16SB	2141	MA6	N3-C2-N1	-5.74	119.71	128.68
1	16SB	2142	MA6	N3-C2-N1	-5.72	119.74	128.68
23	PSIB	54	5MU	C4-N3-C2	-5.69	119.98	127.35
23	PSIB	47	3AU	C1'-N1-C2	5.68	126.57	116.99
26	TRNA	54	5MU	C6-C5-C4	5.66	122.77	118.03
27	23SB	2567	OMU	C4-N3-C2	-5.64	119.14	126.58
26	TRNA	54	5MU	C5-C6-N1	-5.63	117.55	123.34
23	PSIB	54	5MU	O4-C4-C5	-5.63	118.38	124.90
1	16SA	2142	MA6	N3-C2-N1	-5.61	119.91	128.68
22	ASIA	54	5MU	C6-C5-C4	5.56	122.68	118.03
1	16SA	2141	MA6	N3-C2-N1	-5.53	120.04	128.68
23	PSIB	8	4SU	C5-C4-N3	5.45	119.75	114.69
23	PSIB	47	3AU	O2-C2-N3	-5.40	114.48	121.99
27	23SB	1940	5MU	C5-C6-N1	-5.39	117.79	123.34
26	TRNA	37	MIA	C15-C14-C13	-5.39	107.07	122.65
23	PSIB	16	H2U	C4-N3-C2	-5.36	121.34	125.79
27	23SA	2266	OMG	O6-C6-N1	-5.35	114.33	120.65
57	ASIB	54	5MU	O4-C4-C5	-5.30	118.76	124.90
27	23SA	1940	5MU	O4-C4-C5	-5.28	118.78	124.90
26	TRNA	37	MIA	C2-N3-C4	5.26	122.58	115.32
57	ASIB	54	5MU	C5-C6-N1	-5.19	118.00	123.34
23	PSIA	54	5MU	C6-C5-C4	5.17	122.35	118.03
57	ASIB	54	5MU	C6-C5-C4	5.12	122.31	118.03
26	TRNA	20	H2U	C4-N3-C2	-5.10	121.56	125.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	23SB	2518	2MA	C1'-N9-C4	-5.07	117.74	126.64
23	PSIA	37	MIA	C11-S10-C2	5.05	106.04	102.27
24	ESIB	37	MIA	C16-C14-C13	-4.99	108.23	122.65
27	23SB	1964	5MU	O4-C4-C5	-4.93	119.19	124.90
27	23SA	2518	2MA	C2-N3-C4	4.92	119.52	115.52
1	16SA	2121	UR3	C4-N3-C2	-4.88	119.97	124.56
22	ASIA	37	MIA	C16-C14-C13	-4.86	108.60	122.65
26	TRNA	54	5MU	O4-C4-C5	-4.85	119.28	124.90
24	ESIA	37	MIA	C16-C14-C13	-4.84	108.64	122.65
27	23SA	1964	5MU	O4-C4-C5	-4.72	119.43	124.90
57	ASIB	37	MIA	C15-C14-C13	-4.69	109.08	122.65
27	23SB	1940	5MU	O4-C4-C5	-4.69	119.47	124.90
23	PSIB	37	MIA	C16-C14-C13	-4.68	109.11	122.65
23	PSIA	54	5MU	O4-C4-C5	-4.68	119.48	124.90
27	23SB	2620	PSU	C4-N3-C2	-4.66	119.63	126.34
23	PSIB	54	5MU	C6-C5-C4	4.66	121.92	118.03
26	TRNA	55	PSU	C4-N3-C2	-4.65	119.64	126.34
27	23SA	1936	PSU	N1-C2-N3	4.64	120.39	115.13
26	TRNA	39	PSU	N1-C2-N3	4.63	120.38	115.13
27	23SB	1940	5MU	C6-N1-C2	-4.61	116.62	121.30
22	ASIA	37	MIA	C15-C14-C13	-4.61	109.33	122.65
23	PSIB	8	4SU	S4-C4-N3	4.60	124.74	120.21
27	23SA	2620	PSU	N1-C2-N3	4.60	120.34	115.13
27	23SA	2620	PSU	C4-N3-C2	-4.56	119.77	126.34
1	16SB	1145	PSU	C4-N3-C2	-4.56	119.78	126.34
26	TRNA	39	PSU	C4-N3-C2	-4.54	119.80	126.34
27	23SB	1940	5MU	C5M-C5-C6	-4.54	116.78	122.85
23	PSIA	37	MIA	C15-C14-C13	-4.54	109.53	122.65
22	ASIA	54	5MU	C5M-C5-C6	-4.54	116.79	122.85
23	PSIB	54	5MU	C6-N1-C2	-4.54	116.70	121.30
1	16SA	1589	M2G	N1-C2-N2	4.53	121.89	118.04
23	PSIB	55	PSU	C4-N3-C2	-4.53	119.82	126.34
22	ASIA	8	4SU	C5-C4-S4	-4.52	118.65	124.47
27	23SA	1936	PSU	C4-N3-C2	-4.51	119.84	126.34
27	23SA	1942	PSU	C4-N3-C2	-4.51	119.84	126.34
27	23SA	2518	2MA	C1'-N9-C4	-4.51	118.72	126.64
1	16SA	1145	PSU	N1-C2-N3	4.50	120.23	115.13
26	TRNA	55	PSU	N1-C2-N3	4.48	120.21	115.13
27	23SA	1942	PSU	N1-C2-N3	4.46	120.19	115.13
27	23SA	1964	5MU	C5M-C5-C6	-4.45	116.90	122.85
22	ASIA	54	5MU	O4-C4-C5	-4.45	119.75	124.90
26	TRNA	54	5MU	C5M-C5-C6	-4.44	116.92	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	PSIB	37	MIA	C15-C14-C13	-4.44	109.82	122.65
23	PSIA	39	PSU	C4-N3-C2	-4.43	119.95	126.34
23	PSIA	8	4SU	C5-C4-S4	-4.41	118.78	124.47
22	ASIA	55	PSU	N1-C2-N3	4.38	120.09	115.13
26	TRNA	32	PSU	C4-N3-C2	-4.38	120.03	126.34
27	23SB	1942	PSU	C4-N3-C2	-4.37	120.05	126.34
23	PSIA	55	PSU	N1-C2-N3	4.36	120.07	115.13
22	ASIA	39	PSU	C4-N3-C2	-4.33	120.10	126.34
57	ASIB	32	PSU	C4-N3-C2	-4.32	120.11	126.34
26	TRNA	32	PSU	N1-C2-N3	4.32	120.02	115.13
27	23SA	2567	OMU	N3-C2-N1	4.31	120.61	114.89
27	23SA	2266	OMG	O6-C6-C5	-4.30	115.97	124.37
23	PSIB	32	PSU	N1-C2-N3	4.30	120.00	115.13
57	ASIB	39	PSU	C4-N3-C2	-4.29	120.15	126.34
23	PSIB	32	PSU	C4-N3-C2	-4.28	120.17	126.34
23	PSIA	32	PSU	C4-N3-C2	-4.28	120.18	126.34
1	16SB	2030	4OC	CM4-N4-C4	-4.27	114.10	122.45
57	ASIB	32	PSU	N1-C2-N3	4.25	119.94	115.13
23	PSIA	54	5MU	C5M-C5-C6	-4.24	117.18	122.85
23	PSIB	39	PSU	C4-N3-C2	-4.24	120.23	126.34
27	23SB	2266	OMG	O6-C6-C5	-4.23	116.12	124.37
22	ASIA	55	PSU	C4-N3-C2	-4.21	120.28	126.34
1	16SB	1145	PSU	N1-C2-N3	4.19	119.88	115.13
23	PSIB	54	5MU	C5M-C5-C6	-4.16	117.30	122.85
23	PSIB	8	4SU	N3-C2-N1	4.16	120.41	114.89
26	TRNA	8	4SU	C5-C4-S4	-4.15	119.12	124.47
27	23SB	1964	5MU	C5M-C5-C6	-4.15	117.31	122.85
57	ASIB	54	5MU	C5M-C5-C6	-4.14	117.31	122.85
23	PSIB	39	PSU	N1-C2-N3	4.13	119.81	115.13
27	23SB	1936	PSU	C4-N3-C2	-4.13	120.39	126.34
27	23SB	1942	PSU	N1-C2-N3	4.12	119.80	115.13
27	23SB	2620	PSU	N1-C2-N3	4.11	119.78	115.13
23	PSIB	55	PSU	N1-C2-N3	4.11	119.78	115.13
24	ESIB	37	MIA	C15-C14-C13	-4.10	110.80	122.65
23	PSIA	39	PSU	N1-C2-N3	4.09	119.77	115.13
1	16SA	1145	PSU	C4-N3-C2	-4.09	120.44	126.34
27	23SA	1940	5MU	C5M-C5-C6	-4.08	117.40	122.85
1	16SA	1590	5MC	C5-C6-N1	-4.08	119.14	123.34
27	23SA	1940	5MU	C6-N1-C2	-4.05	117.19	121.30
23	PSIA	8	4SU	N3-C2-N1	4.05	120.27	114.89
57	ASIB	37	MIA	C16-C14-C13	-4.03	110.99	122.65
57	ASIB	39	PSU	N1-C2-N3	4.02	119.69	115.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	ESIA	37	MIA	C15-C14-C13	-4.00	111.09	122.65
23	PSIA	32	PSU	N1-C2-N3	3.99	119.65	115.13
24	ESIB	37	MIA	C12-N6-C6	-3.96	116.67	122.55
23	PSIA	16	H2U	C5-C4-N3	3.95	121.09	116.65
1	16SA	2028	5MC	C5-C6-N1	-3.95	119.27	123.34
26	TRNA	37	MIA	C16-C14-C13	-3.92	111.31	122.65
12	S12B	89	0TD	OD2-CG-CB	3.91	121.59	113.15
23	PSIB	54	5MU	C5-C6-N1	-3.90	119.32	123.34
22	ASIA	32	PSU	N1-C2-N3	3.89	119.54	115.13
27	23SB	2567	OMU	N3-C2-N1	3.87	120.03	114.89
1	16SB	2121	UR3	C4-N3-C2	-3.86	120.93	124.56
23	PSIB	47	3AU	C6-N1-C2	-3.85	118.34	121.79
23	PSIA	55	PSU	C4-N3-C2	-3.85	120.79	126.34
23	PSIA	47	3AU	C1'-N1-C2	3.84	123.48	116.99
22	ASIA	32	PSU	C4-N3-C2	-3.84	120.80	126.34
23	PSIB	37	MIA	C12-N6-C6	-3.82	116.88	122.55
27	23SB	1964	5MU	C6-N1-C2	-3.79	117.46	121.30
23	PSIB	37	MIA	C11-S10-C2	3.78	105.09	102.27
26	TRNA	16	H2U	C5-C4-N3	3.78	120.89	116.65
22	ASIA	39	PSU	N1-C2-N3	3.76	119.39	115.13
24	ESIB	37	MIA	C2-N3-C4	3.73	120.46	115.32
27	23SA	1967	5MC	C5-C6-N1	-3.73	119.50	123.34
23	PSIA	37	MIA	C2-N3-C4	3.70	120.42	115.32
23	PSIB	16	H2U	C5-C4-N3	3.67	120.78	116.65
23	PSIA	37	MIA	C16-C14-C13	-3.67	112.05	122.65
27	23SA	1987	5MC	C5-C6-N1	-3.63	119.61	123.34
1	16SB	2028	5MC	C5-C6-N1	-3.62	119.61	123.34
24	ESIA	37	MIA	C5-C6-N1	-3.61	117.81	120.81
23	PSIB	8	4SU	O2-C2-N1	-3.60	118.00	122.79
27	23SB	1936	PSU	N1-C2-N3	3.59	119.20	115.13
22	ASIA	8	4SU	N3-C2-N1	3.59	119.65	114.89
22	ASIA	37	MIA	C2-N3-C4	3.59	120.27	115.32
1	16SA	2035	5MC	C5-C6-N1	-3.56	119.67	123.34
27	23SA	2266	OMG	N2-C2-N1	3.56	124.29	116.71
57	ASIB	37	MIA	C2-N3-C4	3.55	120.22	115.32
27	23SA	2567	OMU	C5-C4-N3	3.49	120.07	114.84
27	23SB	2567	OMU	C5-C4-N3	3.49	120.07	114.84
26	TRNA	54	5MU	C6-N1-C2	-3.49	117.76	121.30
23	PSIB	37	MIA	C2-N3-C4	3.47	120.11	115.32
23	PSIB	47	3AU	C4-N3-C2	-3.47	120.28	124.63
23	PSIA	37	MIA	C12-N6-C6	-3.46	117.42	122.55
57	ASIB	54	5MU	C6-N1-C2	-3.45	117.81	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	TRNA	20	H2U	C5-C6-N1	3.45	122.97	111.61
27	23SB	1940	5MU	N3-C2-N1	3.42	119.43	114.89
27	23SB	1964	5MU	N3-C2-N1	3.42	119.42	114.89
26	TRNA	20	H2U	C5-C4-N3	3.41	120.48	116.65
1	16SB	1590	5MC	C5-C6-N1	-3.39	119.85	123.34
26	TRNA	16	H2U	N3-C2-N1	3.38	120.23	116.65
24	ESIA	37	MIA	C2-N3-C4	3.35	119.94	115.32
27	23SA	1940	5MU	N3-C2-N1	3.34	119.33	114.89
23	PSIA	16	H2U	N3-C2-N1	3.34	120.19	116.65
23	PSIB	16	H2U	C5-C6-N1	3.33	122.58	111.61
12	S12A	89	0TD	OD2-CG-CB	3.31	120.30	113.15
23	PSIB	37	MIA	C4-C5-N7	-3.30	105.97	109.40
26	TRNA	8	4SU	N3-C2-N1	3.23	119.18	114.89
1	16SB	1834	2MG	C5-C6-N1	3.21	119.61	113.95
23	PSIA	47	3AU	C4-N3-C2	-3.20	120.62	124.63
22	ASIA	54	5MU	C6-N1-C2	-3.19	118.07	121.30
27	23SA	1942	PSU	O2-C2-N1	-3.18	119.29	122.79
27	23SA	1936	PSU	O2-C2-N1	-3.15	119.32	122.79
23	PSIA	55	PSU	C6-N1-C2	-3.14	119.47	122.68
1	16SA	1834	2MG	C5-C6-N1	3.13	119.48	113.95
23	PSIA	47	3AU	C6-N1-C2	-3.11	119.00	121.79
27	23SB	2567	OMU	O4-C4-C5	-3.10	119.70	125.16
1	16SB	2121	UR3	C1'-N1-C2	3.08	122.19	116.99
27	23SB	2266	OMG	N2-C2-N1	3.06	123.23	116.71
1	16SB	2030	4OC	C2'-C1'-N1	-3.02	108.36	114.22
1	16SB	2121	UR3	C6-N1-C2	-3.02	119.08	121.79
1	16SA	1156	G7M	C2-N1-C6	-3.02	119.54	125.10
1	16SB	1589	M2G	C5-C6-N1	3.01	119.28	113.95
26	TRNA	20	H2U	N3-C2-N1	3.00	119.82	116.65
26	TRNA	16	H2U	C5-C6-N1	3.00	121.48	111.61
23	PSIA	46	G7M	C2-N1-C6	-2.99	119.58	125.10
22	ASIA	37	MIA	C12-N6-C6	-2.98	118.12	122.55
1	16SA	1589	M2G	C5-C6-N1	2.98	119.22	113.95
23	PSIB	46	G7M	C2-N1-C6	-2.96	119.65	125.10
27	23SB	1967	5MC	C5-C6-N1	-2.96	120.30	123.34
57	ASIB	37	MIA	C1'-N9-C4	2.96	131.83	126.64
1	16SA	1145	PSU	C6-N1-C2	-2.95	119.67	122.68
22	ASIA	54	5MU	N3-C2-N1	2.94	118.79	114.89
23	PSIA	16	H2U	C5-C6-N1	2.93	121.26	111.61
23	PSIB	47	3AU	C5-C4-N3	2.90	119.32	115.50
23	PSIA	47	3AU	C5-C4-N3	2.90	119.32	115.50
27	23SA	2518	2MA	N3-C2-N1	-2.87	120.48	125.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	16SB	1156	G7M	C2-N1-C6	-2.85	119.84	125.10
22	ASIA	46	G7M	C2-N1-C6	-2.84	119.87	125.10
23	PSIA	47	3AU	O2-C2-N3	-2.82	118.08	121.99
27	23SB	2567	OMU	O2-C2-N1	-2.80	119.07	122.79
57	ASIB	39	PSU	O2-C2-N1	-2.79	119.71	122.79
27	23SA	1964	5MU	N3-C2-N1	2.79	118.59	114.89
27	23SB	1987	5MC	C5-C6-N1	-2.78	120.48	123.34
22	ASIA	55	PSU	O2-C2-N1	-2.78	119.73	122.79
24	ESIB	37	MIA	C5-C6-N1	-2.78	118.50	120.81
26	TRNA	32	PSU	O2-C2-N1	-2.78	119.73	122.79
23	PSIA	55	PSU	O2-C2-N1	-2.77	119.74	122.79
27	23SB	2518	2MA	N3-C2-N1	-2.77	120.68	125.73
22	ASIA	54	5MU	O2-C2-N1	-2.76	119.11	122.79
26	TRNA	39	PSU	O2-C2-N1	-2.73	119.79	122.79
27	23SB	1964	5MU	O2-C2-N1	-2.73	119.16	122.79
27	23SA	2266	OMG	C2-N1-C6	2.72	130.09	125.10
26	TRNA	55	PSU	O2-C2-N1	-2.69	119.83	122.79
1	16SA	1834	2MG	C8-N7-C5	2.68	108.10	102.99
57	ASIB	37	MIA	C5-C6-N1	-2.67	118.59	120.81
26	TRNA	37	MIA	C16-C14-C15	-2.67	108.70	114.60
1	16SB	1834	2MG	C8-N7-C5	2.67	108.07	102.99
26	TRNA	16	H2U	O2-C2-N1	-2.66	119.76	123.11
1	16SB	1589	M2G	C2-N1-C6	-2.65	119.31	123.71
23	PSIB	16	H2U	N3-C2-N1	2.65	119.45	116.65
24	ESIA	37	MIA	C4-C5-N7	-2.64	106.65	109.40
23	PSIB	47	3AU	C1'-N1-C6	-2.64	115.08	120.84
23	PSIB	54	5MU	C1'-N1-C2	2.64	122.34	117.57
1	16SA	1589	M2G	C8-N7-C5	2.63	108.00	102.99
26	TRNA	54	5MU	N3-C2-N1	2.62	118.37	114.89
1	16SB	2035	5MC	C5-C6-N1	-2.59	120.68	123.34
24	ESIB	37	MIA	C16-C14-C15	-2.58	108.90	114.60
57	ASIB	32	PSU	O2-C2-N1	-2.58	119.95	122.79
24	ESIB	37	MIA	N3-C2-N1	-2.57	122.25	126.98
27	23SA	2567	OMU	O4-C4-C5	-2.56	120.65	125.16
1	16SA	1589	M2G	C2-N1-C6	-2.56	119.46	123.71
27	23SA	1964	5MU	O2-C2-N1	-2.55	119.40	122.79
23	PSIA	37	MIA	C4-C5-N7	-2.55	106.75	109.40
22	ASIA	55	PSU	C6-N1-C2	-2.53	120.09	122.68
23	PSIB	37	MIA	C16-C14-C15	-2.53	109.01	114.60
27	23SA	1936	PSU	C6-N1-C2	-2.52	120.11	122.68
24	ESIB	37	MIA	C4-C5-N7	-2.51	106.78	109.40
24	ESIA	37	MIA	C2-N1-C6	2.49	121.65	117.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	ASIA	37	MIA	C4-C5-N7	-2.49	106.80	109.40
27	23SB	2266	OMG	C2-N1-C6	2.49	129.68	125.10
23	PSIB	37	MIA	C5-C6-N1	-2.49	118.74	120.81
24	ESIA	37	MIA	N3-C2-N1	-2.48	122.42	126.98
23	PSIB	39	PSU	O2-C2-N1	-2.48	120.06	122.79
1	16SB	1589	M2G	C8-N7-C5	2.47	107.70	102.99
23	PSIB	32	PSU	C6-N1-C2	-2.46	120.16	122.68
27	23SA	2620	PSU	C6-C5-C4	2.46	119.92	118.20
23	PSIB	47	3AU	C10-N3-C4	2.45	121.97	117.14
27	23SB	2620	PSU	O2-C2-N1	-2.45	120.10	122.79
23	PSIB	32	PSU	O2-C2-N1	-2.45	120.10	122.79
23	PSIB	54	5MU	N3-C2-N1	2.44	118.13	114.89
27	23SA	1964	5MU	C6-N1-C2	-2.43	118.83	121.30
22	ASIA	37	MIA	N3-C2-N1	-2.41	122.54	126.98
23	PSIA	37	MIA	C5-C6-N1	-2.41	118.81	120.81
27	23SA	2620	PSU	C6-N1-C2	-2.40	120.22	122.68
27	23SB	2266	OMG	N1-C2-N3	-2.40	118.84	123.32
27	23SB	1940	5MU	O3'-C3'-C2'	2.40	119.57	111.82
57	ASIB	54	5MU	N3-C2-N1	2.39	118.06	114.89
22	ASIA	32	PSU	C6-N1-C2	-2.39	120.24	122.68
27	23SA	1940	5MU	C1'-N1-C2	2.37	121.87	117.57
57	ASIB	37	MIA	C4-C5-N7	-2.37	106.93	109.40
1	16SB	1834	2MG	CM2-N2-C2	-2.36	118.64	123.86
27	23SB	1936	PSU	O2-C2-N1	-2.35	120.20	122.79
27	23SA	2266	OMG	N1-C2-N3	-2.35	118.93	123.32
27	23SB	1942	PSU	O2-C2-N1	-2.34	120.21	122.79
23	PSIA	37	MIA	N3-C2-N1	-2.34	122.68	126.98
26	TRNA	20	H2U	O2-C2-N3	-2.33	117.15	121.50
22	ASIA	8	4SU	C1'-N1-C2	2.32	121.78	117.57
23	PSIA	16	H2U	O2-C2-N1	-2.31	120.21	123.11
27	23SB	2518	2MA	CM2-C2-N1	2.31	120.76	117.15
22	ASIA	37	MIA	C5-C6-N1	-2.31	118.89	120.81
23	PSIB	16	H2U	O2-C2-N1	-2.31	120.21	123.11
1	16SB	2032	5MC	C5-C6-N1	-2.30	120.97	123.34
1	16SA	2121	UR3	C1'-N1-C2	2.30	120.87	116.99
23	PSIA	8	4SU	O2-C2-N1	-2.27	119.77	122.79
12	S12B	89	0TD	OD1-CG-CB	-2.27	117.70	122.44
57	ASIB	32	PSU	C6-N1-C2	-2.26	120.37	122.68
1	16SA	2030	4OC	C6-C5-C4	2.26	119.73	116.96
24	ESIB	37	MIA	C2-N1-C6	2.26	121.23	117.19
23	PSIB	37	MIA	N3-C2-N1	-2.26	122.83	126.98
26	TRNA	39	PSU	C6-C5-C4	2.26	119.78	118.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	PSIB	55	PSU	O2-C2-N1	-2.24	120.33	122.79
23	PSIA	32	PSU	O2-C2-N1	-2.22	120.34	122.79
26	TRNA	32	PSU	C6-N1-C2	-2.22	120.41	122.68
23	PSIB	39	PSU	C6-N1-C2	-2.22	120.42	122.68
23	PSIA	39	PSU	O2-C2-N1	-2.21	120.36	122.79
27	23SA	1942	PSU	C6-N1-C2	-2.21	120.42	122.68
1	16SB	2035	5MC	C5-C4-N3	-2.21	119.29	121.67
1	16SB	2028	5MC	C1'-N1-C6	-2.21	117.45	121.12
1	16SB	2030	4OC	C5-C6-N1	-2.21	118.11	121.81
22	ASIA	39	PSU	O2-C2-N1	-2.19	120.38	122.79
23	PSIA	54	5MU	O4-C4-N3	-2.19	115.93	120.12
1	16SA	1145	PSU	O4'-C1'-C2'	2.18	108.22	105.14
57	ASIB	37	MIA	C16-C14-C15	-2.17	109.81	114.60
26	TRNA	8	4SU	C1'-N1-C2	2.17	121.50	117.57
26	TRNA	39	PSU	C6-N1-C2	-2.17	120.47	122.68
57	ASIB	39	PSU	C6-N1-C2	-2.17	120.47	122.68
27	23SB	1945	OMC	O2-C2-N3	-2.17	118.81	122.33
27	23SA	1964	5MU	O4-C4-N3	-2.16	115.98	120.12
1	16SA	2121	UR3	C6-N1-C2	-2.14	119.87	121.79
1	16SB	2028	5MC	CM5-C5-C6	-2.14	119.99	122.85
1	16SA	2032	5MC	C5-C6-N1	-2.14	121.14	123.34
22	ASIA	54	5MU	O4-C4-N3	-2.13	116.03	120.12
27	23SA	2567	OMU	O2-C2-N1	-2.13	119.96	122.79
1	16SA	1834	2MG	CM2-N2-C2	-2.12	119.19	123.86
1	16SB	2035	5MC	O2-C2-N3	-2.11	118.89	122.33
1	16SB	2030	4OC	O2-C2-N3	-2.10	118.92	122.33
27	23SB	1967	5MC	CM5-C5-C6	-2.09	120.06	122.85
1	16SB	2032	5MC	C5-C4-N3	-2.09	119.42	121.67
26	TRNA	54	5MU	C1'-N1-C2	2.09	121.35	117.57
26	TRNA	37	MIA	N3-C2-N1	-2.09	123.14	126.98
57	ASIB	37	MIA	N3-C2-N1	-2.08	123.15	126.98
22	ASIA	37	MIA	C16-C14-C15	-2.08	110.01	114.60
1	16SB	1145	PSU	O4'-C1'-C2'	2.08	108.08	105.14
1	16SB	1834	2MG	O6-C6-C5	-2.08	120.32	124.37
22	ASIA	32	PSU	O2-C2-N1	-2.08	120.50	122.79
1	16SA	2032	5MC	CM5-C5-C6	-2.07	120.08	122.85
26	TRNA	55	PSU	C6-N1-C2	-2.06	120.58	122.68
27	23SA	2518	2MA	C5-C6-N1	-2.05	119.66	121.01
27	23SB	1967	5MC	C5-C4-N3	-2.05	119.47	121.67
27	23SA	1940	5MU	O4-C4-N3	-2.05	116.19	120.12
23	PSIA	47	3AU	O31-C13-C12	2.03	120.30	113.38
22	ASIA	37	MIA	C2-N1-C6	2.03	120.82	117.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	PSIA	37	MIA	C2-N1-C6	2.02	120.81	117.19
27	23SB	1942	PSU	C6-N1-C2	-2.01	120.62	122.68
1	16SB	1589	M2G	O6-C6-C5	-2.01	120.44	124.37
23	PSIB	37	MIA	C2-N1-C6	2.01	120.79	117.19
23	PSIB	47	3AU	O31-C13-O30	-2.01	119.53	124.09

There are no chirality outliers.

All (117) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	16SA	1156	G7M	O4'-C4'-C5'-O5'
1	16SA	1156	G7M	C3'-C4'-C5'-O5'
1	16SA	2142	MA6	O4'-C4'-C5'-O5'
12	S12A	89	0TD	CG-CB-SB-CSB
22	ASIA	37	MIA	O4'-C4'-C5'-O5'
22	ASIA	37	MIA	C12-C13-C14-C15
22	ASIA	37	MIA	C12-C13-C14-C16
26	TRNA	8	4SU	C3'-C4'-C5'-O5'
26	TRNA	8	4SU	O4'-C4'-C5'-O5'
26	TRNA	16	H2U	O4'-C4'-C5'-O5'
26	TRNA	16	H2U	C3'-C4'-C5'-O5'
26	TRNA	20	H2U	O4'-C4'-C5'-O5'
26	TRNA	20	H2U	C3'-C4'-C5'-O5'
26	TRNA	37	MIA	N1-C2-S10-C11
26	TRNA	37	MIA	N3-C2-S10-C11
26	TRNA	37	MIA	C12-C13-C14-C15
26	TRNA	37	MIA	C12-C13-C14-C16
26	TRNA	54	5MU	C3'-C4'-C5'-O5'
26	TRNA	54	5MU	O4'-C4'-C5'-O5'
1	16SB	1156	G7M	C3'-C4'-C5'-O5'
1	16SB	1834	2MG	O4'-C4'-C5'-O5'
1	16SB	1834	2MG	C3'-C4'-C5'-O5'
1	16SB	2142	MA6	O4'-C4'-C5'-O5'
23	PSIA	37	MIA	O4'-C4'-C5'-O5'
23	PSIA	37	MIA	C3'-C4'-C5'-O5'
23	PSIA	37	MIA	C12-C13-C14-C15
23	PSIB	37	MIA	C12-C13-C14-C15
23	PSIB	37	MIA	C12-C13-C14-C16
23	PSIA	47	3AU	N3-C10-C11-C12
23	PSIA	47	3AU	C10-C11-C12-C13
23	PSIA	47	3AU	C10-C11-C12-N40
23	PSIA	47	3AU	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
23	PSIA	47	3AU	O4'-C4'-C5'-O5'
23	PSIB	47	3AU	C2'-C1'-N1-C2
23	PSIB	54	5MU	C3'-C4'-C5'-O5'
23	PSIB	54	5MU	O4'-C4'-C5'-O5'
24	ESIA	37	MIA	N1-C2-S10-C11
24	ESIA	37	MIA	N3-C2-S10-C11
24	ESIA	37	MIA	C12-C13-C14-C15
24	ESIA	37	MIA	C12-C13-C14-C16
24	ESIB	37	MIA	O4'-C4'-C5'-O5'
24	ESIB	37	MIA	C3'-C4'-C5'-O5'
24	ESIB	37	MIA	N1-C2-S10-C11
24	ESIB	37	MIA	N3-C2-S10-C11
24	ESIB	37	MIA	C12-C13-C14-C16
27	23SA	2266	OMG	C1'-C2'-O2'-CM2
27	23SB	2266	OMG	C1'-C2'-O2'-CM2
57	ASIB	37	MIA	C12-C13-C14-C15
26	TRNA	20	H2U	C2'-C1'-N1-C2
1	16SA	2142	MA6	C3'-C4'-C5'-O5'
22	ASIA	37	MIA	C3'-C4'-C5'-O5'
1	16SB	1156	G7M	O4'-C4'-C5'-O5'
1	16SB	2142	MA6	C3'-C4'-C5'-O5'
23	PSIB	8	4SU	C3'-C4'-C5'-O5'
23	PSIB	8	4SU	O4'-C4'-C5'-O5'
23	PSIB	47	3AU	C3'-C4'-C5'-O5'
23	PSIB	47	3AU	O4'-C4'-C5'-O5'
24	ESIA	37	MIA	C3'-C4'-C5'-O5'
27	23SB	1964	5MU	O4'-C4'-C5'-O5'
27	23SB	2518	2MA	O4'-C4'-C5'-O5'
23	PSIB	47	3AU	C2'-C1'-N1-C6
1	16SA	2030	4OC	O4'-C4'-C5'-O5'
22	ASIA	46	G7M	C3'-C4'-C5'-O5'
1	16SB	2030	4OC	O4'-C4'-C5'-O5'
27	23SB	1964	5MU	C3'-C4'-C5'-O5'
26	TRNA	20	H2U	C2'-C1'-N1-C6
23	PSIA	55	PSU	C3'-C4'-C5'-O5'
27	23SB	2567	OMU	C3'-C4'-C5'-O5'
1	16SA	2030	4OC	C3'-C4'-C5'-O5'
22	ASIA	55	PSU	C3'-C4'-C5'-O5'
27	23SA	1940	5MU	C3'-C4'-C5'-O5'
27	23SB	2518	2MA	C3'-C4'-C5'-O5'
22	ASIA	55	PSU	O4'-C4'-C5'-O5'
27	23SB	2567	OMU	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
1	16SB	2030	4OC	C3'-C4'-C5'-O5'
26	TRNA	16	H2U	C4'-C5'-O5'-P
26	TRNA	37	MIA	C4'-C5'-O5'-P
23	PSIA	55	PSU	O4'-C4'-C5'-O5'
22	ASIA	46	G7M	O4'-C4'-C5'-O5'
24	ESIA	37	MIA	O4'-C4'-C5'-O5'
27	23SA	1940	5MU	O4'-C4'-C5'-O5'
57	ASIB	37	MIA	N3-C2-S10-C11
23	PSIA	55	PSU	C4'-C5'-O5'-P
12	S12B	89	0TD	SB-CB-CG-OD1
23	PSIB	37	MIA	C3'-C4'-C5'-O5'
23	PSIB	47	3AU	C11-C12-C13-O31
23	PSIB	47	3AU	C4'-C5'-O5'-P
24	ESIB	37	MIA	C4'-C5'-O5'-P
23	PSIA	46	G7M	O4'-C4'-C5'-O5'
23	PSIB	47	3AU	C11-C12-C13-O30
22	ASIA	37	MIA	N3-C2-S10-C11
23	PSIA	37	MIA	N3-C2-S10-C11
1	16SA	2142	MA6	C4'-C5'-O5'-P
22	ASIA	8	4SU	C4'-C5'-O5'-P
1	16SB	2142	MA6	C4'-C5'-O5'-P
57	ASIB	37	MIA	N1-C2-S10-C11
27	23SA	1964	5MU	O4'-C4'-C5'-O5'
24	ESIA	37	MIA	N6-C12-C13-C14
22	ASIA	37	MIA	N1-C2-S10-C11
23	PSIA	37	MIA	N1-C2-S10-C11
23	PSIB	37	MIA	N3-C2-S10-C11
22	ASIA	55	PSU	O4'-C1'-C5-C4
23	PSIA	47	3AU	C2'-C1'-N1-C6
12	S12B	89	0TD	CA-CB-SB-CSB
23	PSIA	47	3AU	C2'-C1'-N1-C2
23	PSIA	46	G7M	C3'-C4'-C5'-O5'
27	23SA	1964	5MU	C3'-C4'-C5'-O5'
23	PSIB	37	MIA	N1-C2-S10-C11
27	23SA	1945	OMC	C2'-C1'-N1-C2
26	TRNA	20	H2U	C4'-C5'-O5'-P
27	23SA	2518	2MA	C4'-C5'-O5'-P
23	PSIB	37	MIA	O4'-C4'-C5'-O5'
12	S12B	89	0TD	CG-CB-SB-CSB
12	S12A	89	0TD	SB-CB-CG-OD1
27	23SB	1945	OMC	C2'-C1'-N1-C2
27	23SA	1940	5MU	C2'-C1'-N1-C2

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Mol	Chain	Res	Type	Atoms
27	23SB	2518	2MA	C4'-C5'-O5'-P

There are no ring outliers.

1 monomer is involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
26	TRNA	37	MIA	0	4

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1698 ligands modelled in this entry, 1077 are monoatomic - leaving 621 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
59	OHX	23SA	3327	-	0,6,6	-	-	-		
59	OHX	23SA	3286	-	0,6,6	-	-	-		
59	OHX	16SA	2340	-	0,6,6	-	-	-		
59	OHX	5SB	210	-	0,6,6	-	-	-		
59	OHX	23SB	3047	-	0,6,6	-	-	-		
59	OHX	23SB	3086	-	0,6,6	-	-	-		
59	OHX	23SA	3309	-	0,6,6	-	-	-		
59	OHX	16SB	2216	-	0,6,6	-	-	-		
59	OHX	16SA	2331	-	0,6,6	-	-	-		
59	OHX	23SB	3133	-	0,6,6	-	-	-		
59	OHX	16SA	2308	-	0,6,6	-	-	-		
59	OHX	16SA	2314	-	0,6,6	-	-	-		
59	OHX	23SB	3156	-	0,6,6	-	-	-		
59	OHX	23SB	3192	-	0,6,6	-	-	-		
59	OHX	23SA	3375	-	0,6,6	-	-	-		
59	OHX	23SA	3202	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	L27A	103	-	0,6,6	-	-	-		
59	OHX	16SB	2204	-	0,6,6	-	-	-		
59	OHX	23SB	3002	-	0,6,6	-	-	-		
59	OHX	23SA	3200	-	0,6,6	-	-	-		
59	OHX	23SA	3350	-	0,6,6	-	-	-		
59	OHX	23SA	3225	-	0,6,6	-	-	-		
59	OHX	23SA	3259	-	0,6,6	-	-	-		
59	OHX	23SA	3357	27	0,6,6	-	-	-		
59	OHX	23SA	3268	-	0,6,6	-	-	-		
59	OHX	16SB	2219	-	0,6,6	-	-	-		
59	OHX	23SA	3361	-	0,6,6	-	-	-		
59	OHX	23SA	3297	-	0,6,6	-	-	-		
59	OHX	23SA	3369	-	0,6,6	-	-	-		
59	OHX	23SB	3168	-	0,6,6	-	-	-		
59	OHX	23SA	3322	-	0,6,6	-	-	-		
59	OHX	5SA	206	-	0,6,6	-	-	-		
59	OHX	5SA	211	-	0,6,6	-	-	-		
59	OHX	23SB	3088	-	0,6,6	-	-	-		
59	OHX	23SB	3097	-	0,6,6	-	-	-		
59	OHX	16SA	2339	-	0,6,6	-	-	-		
59	OHX	23SB	3067	-	0,6,6	-	-	-		
59	OHX	23SA	3329	-	0,6,6	-	-	-		
59	OHX	16SA	2260	-	0,6,6	-	-	-		
59	OHX	23SB	3172	-	0,6,6	-	-	-		
59	OHX	23SB	3008	-	0,6,6	-	-	-		
59	OHX	23SB	3195	-	0,6,6	-	-	-		
59	OHX	5SB	207	-	0,6,6	-	-	-		
59	OHX	MRNA	101	-	0,6,6	-	-	-		
59	OHX	23SB	3041	-	0,6,6	-	-	-		
59	OHX	23SB	3122	-	0,6,6	-	-	-		
59	OHX	23SB	3129	-	0,6,6	-	-	-		
59	OHX	16SB	2261	-	0,6,6	-	-	-		
59	OHX	16SA	2276	-	0,6,6	-	-	-		
59	OHX	23SA	3241	-	0,6,6	-	-	-		
59	OHX	16SA	2333	-	0,6,6	-	-	-		
59	OHX	23SA	3276	-	0,6,6	-	-	-		
59	OHX	16SB	2201	1	0,6,6	-	-	-		
59	OHX	5SA	208	-	0,6,6	-	-	-		
59	OHX	23SB	3072	-	0,6,6	-	-	-		
59	OHX	23SA	3198	-	0,6,6	-	-	-		
59	OHX	23SA	3287	-	0,6,6	-	-	-		
59	OHX	S19A	101	-	0,6,6	-	-	-		
59	OHX	16SA	2326	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
59	OHX	23SB	3031	-	0,6,6	-	-	-		
59	OHX	23SA	3232	-	0,6,6	-	-	-		
59	OHX	23SA	3238	-	0,6,6	-	-	-		
59	OHX	23SA	3288	-	0,6,6	-	-	-		
59	OHX	23SA	3354	-	0,6,6	-	-	-		
59	OHX	23SA	3239	-	0,6,6	-	-	-		
59	OHX	23SA	3285	-	0,6,6	-	-	-		
59	OHX	23SB	3080	-	0,6,6	-	-	-		
59	OHX	23SB	3091	-	0,6,6	-	-	-		
59	OHX	23SB	3134	-	0,6,6	-	-	-		
59	OHX	23SA	3362	-	0,6,6	-	-	-		
59	OHX	23SB	3150	-	0,6,6	-	-	-		
59	OHX	23SA	3333	-	0,6,6	-	-	-		
59	OHX	23SB	3118	-	0,6,6	-	-	-		
59	OHX	23SB	3139	-	0,6,6	-	-	-		
59	OHX	23SA	3184	-	0,6,6	-	-	-		
59	OHX	23SA	3307	-	0,6,6	-	-	-		
59	OHX	23SA	3204	-	0,6,6	-	-	-		
59	OHX	23SA	3320	-	0,6,6	-	-	-		
59	OHX	23SB	3176	-	0,6,6	-	-	-		
59	OHX	23SB	3015	27	0,6,6	-	-	-		
59	OHX	23SA	3317	-	0,6,6	-	-	-		
59	OHX	23SB	3022	-	0,6,6	-	-	-		
59	OHX	23SB	3089	-	0,6,6	-	-	-		
59	OHX	23SA	3247	-	0,6,6	-	-	-		
59	OHX	16SB	2239	1	0,6,6	-	-	-		
59	OHX	23SB	3153	-	0,6,6	-	-	-		
59	OHX	23SB	3104	-	0,6,6	-	-	-		
59	OHX	23SB	3186	-	0,6,6	-	-	-		
59	OHX	23SB	3135	-	0,6,6	-	-	-		
59	OHX	23SB	3038	-	0,6,6	-	-	-		
59	OHX	23SB	3098	-	0,6,6	-	-	-		
59	OHX	23SA	3243	-	0,6,6	-	-	-		
59	OHX	16SA	2270	-	0,6,6	-	-	-		
59	OHX	23SB	3010	-	0,6,6	-	-	-		
59	OHX	16SB	2215	-	0,6,6	-	-	-		
59	OHX	23SB	3193	-	0,6,6	-	-	-		
59	OHX	23SA	3312	-	0,6,6	-	-	-		
59	OHX	16SB	2217	-	0,6,6	-	-	-		
59	OHX	23SB	3187	-	0,6,6	-	-	-		
59	OHX	16SB	2272	-	0,6,6	-	-	-		
59	OHX	23SA	3237	-	0,6,6	-	-	-		
59	OHX	23SA	3335	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	23SB	3105	-	0,6,6	-	-	-		
59	OHX	23SB	3049	-	0,6,6	-	-	-		
59	OHX	16SA	2275	-	0,6,6	-	-	-		
59	OHX	23SA	3339	-	0,6,6	-	-	-		
59	OHX	16SB	2232	-	0,6,6	-	-	-		
59	OHX	23SB	3005	-	0,6,6	-	-	-		
59	OHX	23SA	3310	-	0,6,6	-	-	-		
59	OHX	23SA	3334	-	0,6,6	-	-	-		
59	OHX	23SB	3073	-	0,6,6	-	-	-		
59	OHX	23SB	3037	-	0,6,6	-	-	-		
59	OHX	16SB	2277	-	0,6,6	-	-	-		
59	OHX	23SB	3066	-	0,6,6	-	-	-		
59	OHX	16SA	2321	-	0,6,6	-	-	-		
59	OHX	23SA	3186	-	0,6,6	-	-	-		
59	OHX	23SA	3214	-	0,6,6	-	-	-		
59	OHX	L27A	102	-	0,6,6	-	-	-		
59	OHX	23SB	3029	-	0,6,6	-	-	-		
59	OHX	16SB	2253	-	0,6,6	-	-	-		
59	OHX	16SA	2272	-	0,6,6	-	-	-		
59	OHX	16SA	2335	-	0,6,6	-	-	-		
59	OHX	23SB	3001	-	0,6,6	-	-	-		
59	OHX	23SA	3179	-	0,6,6	-	-	-		
59	OHX	ASIA	102	-	0,6,6	-	-	-		
59	OHX	TRNA	102	-	0,6,6	-	-	-		
59	OHX	23SB	3119	-	0,6,6	-	-	-		
59	OHX	23SB	3199	-	0,6,6	-	-	-		
59	OHX	L28A	101	-	0,6,6	-	-	-		
59	OHX	16SB	2263	-	0,6,6	-	-	-		
59	OHX	23SA	3328	-	0,6,6	-	-	-		
59	OHX	23SA	3203	-	0,6,6	-	-	-		
59	OHX	23SB	3004	-	0,6,6	-	-	-		
59	OHX	23SB	3171	-	0,6,6	-	-	-		
59	OHX	S10A	201	1	0,6,6	-	-	-		
59	OHX	23SA	3205	-	0,6,6	-	-	-		
59	OHX	23SB	3079	-	0,6,6	-	-	-		
59	OHX	23SB	3030	-	0,6,6	-	-	-		
59	OHX	16SB	2213	-	0,6,6	-	-	-		
59	OHX	23SB	3197	-	0,6,6	-	-	-		
59	OHX	23SA	3191	27	0,6,6	-	-	-		
59	OHX	23SA	3234	-	0,6,6	-	-	-		
59	OHX	23SA	3277	-	0,6,6	-	-	-		
59	OHX	16SB	2237	1	0,6,6	-	-	-		
59	OHX	16SB	2226	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	16SB	2257	-	0,6,6	-	-	-		
59	OHX	23SA	3208	-	0,6,6	-	-	-		
59	OHX	23SA	3323	-	0,6,6	-	-	-		
59	OHX	16SA	2306	1	0,6,6	-	-	-		
59	OHX	23SA	3315	-	0,6,6	-	-	-		
59	OHX	16SA	2271	-	0,6,6	-	-	-		
59	OHX	23SA	3308	-	0,6,6	-	-	-		
59	OHX	23SA	3381	-	0,6,6	-	-	-		
59	OHX	23SA	3219	-	0,6,6	-	-	-		
59	OHX	16SA	2297	-	0,6,6	-	-	-		
59	OHX	16SA	2274	-	0,6,6	-	-	-		
59	OHX	23SA	3343	-	0,6,6	-	-	-		
59	OHX	23SA	3265	-	0,6,6	-	-	-		
59	OHX	23SA	3269	-	0,6,6	-	-	-		
59	OHX	23SA	3365	-	0,6,6	-	-	-		
59	OHX	23SB	3110	-	0,6,6	-	-	-		
59	OHX	23SB	3183	-	0,6,6	-	-	-		
59	OHX	23SA	3236	-	0,6,6	-	-	-		
59	OHX	23SB	3145	-	0,6,6	-	-	-		
59	OHX	16SB	2227	-	0,6,6	-	-	-		
59	OHX	23SB	3107	-	0,6,6	-	-	-		
59	OHX	23SA	3178	-	0,6,6	-	-	-		
59	OHX	16SB	2207	-	0,6,6	-	-	-		
59	OHX	23SB	3093	-	0,6,6	-	-	-		
59	OHX	23SA	3197	-	0,6,6	-	-	-		
59	OHX	16SA	2317	-	0,6,6	-	-	-		
59	OHX	5SB	209	-	0,6,6	-	-	-		
59	OHX	23SB	3012	-	0,6,6	-	-	-		
59	OHX	23SB	3051	-	0,6,6	-	-	-		
59	OHX	23SB	3019	-	0,6,6	-	-	-		
59	OHX	23SA	3262	-	0,6,6	-	-	-		
59	OHX	16SB	2270	-	0,6,6	-	-	-		
59	OHX	23SA	3319	-	0,6,6	-	-	-		
59	OHX	16SA	2301	-	0,6,6	-	-	-		
59	OHX	16SB	2210	-	0,6,6	-	-	-		
59	OHX	16SA	2261	-	0,6,6	-	-	-		
59	OHX	23SA	3273	-	0,6,6	-	-	-		
59	OHX	23SA	3183	27	0,6,6	-	-	-		
59	OHX	16SA	2278	-	0,6,6	-	-	-		
59	OHX	16SA	2323	-	0,6,6	-	-	-		
59	OHX	23SA	3340	-	0,6,6	-	-	-		
59	OHX	16SA	2279	-	0,6,6	-	-	-		
59	OHX	16SA	2281	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	16SA	2322	-	0,6,6	-	-	-		
59	OHX	23SB	3149	-	0,6,6	-	-	-		
59	OHX	16SB	2248	-	0,6,6	-	-	-		
59	OHX	23SA	3348	-	0,6,6	-	-	-		
59	OHX	23SB	3063	-	0,6,6	-	-	-		
59	OHX	23SA	3233	-	0,6,6	-	-	-		
59	OHX	16SB	2262	-	0,6,6	-	-	-		
59	OHX	23SB	3017	-	0,6,6	-	-	-		
59	OHX	16SB	2233	-	0,6,6	-	-	-		
59	OHX	23SB	3189	-	0,6,6	-	-	-		
59	OHX	23SB	3112	-	0,6,6	-	-	-		
59	OHX	23SB	3116	27	0,6,6	-	-	-		
59	OHX	16SA	2313	-	0,6,6	-	-	-		
59	OHX	23SA	3366	-	0,6,6	-	-	-		
59	OHX	23SA	3336	-	0,6,6	-	-	-		
59	OHX	16SA	2318	-	0,6,6	-	-	-		
59	OHX	23SA	3299	-	0,6,6	-	-	-		
59	OHX	23SA	3379	-	0,6,6	-	-	-		
59	OHX	23SA	3209	-	0,6,6	-	-	-		
59	OHX	23SA	3294	-	0,6,6	-	-	-		
59	OHX	23SB	3115	-	0,6,6	-	-	-		
59	OHX	23SB	3007	-	0,6,6	-	-	-		
59	OHX	5SA	204	-	0,6,6	-	-	-		
59	OHX	23SA	3345	-	0,6,6	-	-	-		
59	OHX	23SB	3198	-	0,6,6	-	-	-		
59	OHX	23SA	3229	-	0,6,6	-	-	-		
59	OHX	23SB	3103	-	0,6,6	-	-	-		
59	OHX	16SB	2256	-	0,6,6	-	-	-		
59	OHX	23SB	3054	-	0,6,6	-	-	-		
59	OHX	16SA	2282	-	0,6,6	-	-	-		
59	OHX	16SA	2293	-	0,6,6	-	-	-		
59	OHX	23SB	3125	-	0,6,6	-	-	-		
59	OHX	23SA	3324	-	0,6,6	-	-	-		
59	OHX	23SB	3111	-	0,6,6	-	-	-		
59	OHX	L35A	102	-	0,6,6	-	-	-		
59	OHX	16SB	2209	-	0,6,6	-	-	-		
59	OHX	23SB	3138	27	0,6,6	-	-	-		
59	OHX	23SB	3143	-	0,6,6	-	-	-		
59	OHX	16SA	2269	-	0,6,6	-	-	-		
59	OHX	16SB	2203	-	0,6,6	-	-	-		
61	SJE	23SB	3521	-	87,91,91	4.10	23 (26%)	117,134,134	1.99	22 (18%)
59	OHX	16SA	2334	-	0,6,6	-	-	-		
59	OHX	23SA	3351	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
59	OHX	23SB	3069	-	0,6,6	-	-	-		
59	OHX	L4A	302	-	0,6,6	-	-	-		
59	OHX	S14B	101	-	0,6,6	-	-	-		
59	OHX	16SB	2205	-	0,6,6	-	-	-		
59	OHX	23SB	3175	-	0,6,6	-	-	-		
59	OHX	23SB	3056	-	0,6,6	-	-	-		
59	OHX	ASIA	101	-	0,6,6	-	-	-		
59	OHX	23SA	3325	-	0,6,6	-	-	-		
59	OHX	ESIB	101	-	0,6,6	-	-	-		
59	OHX	23SB	3159	-	0,6,6	-	-	-		
59	OHX	23SB	3123	-	0,6,6	-	-	-		
59	OHX	23SA	3192	-	0,6,6	-	-	-		
59	OHX	23SA	3275	-	0,6,6	-	-	-		
59	OHX	23SA	3372	-	0,6,6	-	-	-		
59	OHX	16SA	2316	-	0,6,6	-	-	-		
59	OHX	23SA	3220	-	0,6,6	-	-	-		
59	OHX	23SA	3303	-	0,6,6	-	-	-		
59	OHX	16SA	2330	-	0,6,6	-	-	-		
59	OHX	16SB	2234	1	0,6,6	-	-	-		
59	OHX	23SB	3023	-	0,6,6	-	-	-		
59	OHX	5SA	210	-	0,6,6	-	-	-		
59	OHX	23SB	3027	-	0,6,6	-	-	-		
59	OHX	23SA	3181	-	0,6,6	-	-	-		
59	OHX	23SB	3127	-	0,6,6	-	-	-		
59	OHX	5SB	202	-	0,6,6	-	-	-		
59	OHX	5SB	205	28	0,6,6	-	-	-		
59	OHX	23SB	3120	-	0,6,6	-	-	-		
59	OHX	16SB	2259	-	0,6,6	-	-	-		
59	OHX	23SA	3359	-	0,6,6	-	-	-		
59	OHX	5SA	207	-	0,6,6	-	-	-		
59	OHX	16SB	2278	-	0,6,6	-	-	-		
59	OHX	23SA	3254	-	0,6,6	-	-	-		
59	OHX	16SB	2206	-	0,6,6	-	-	-		
59	OHX	16SA	2329	-	0,6,6	-	-	-		
59	OHX	23SA	3301	-	0,6,6	-	-	-		
59	OHX	16SB	2235	-	0,6,6	-	-	-		
59	OHX	23SB	3141	-	0,6,6	-	-	-		
59	OHX	23SA	3182	27	0,6,6	-	-	-		
59	OHX	16SA	2294	-	0,6,6	-	-	-		
59	OHX	16SB	2267	-	0,6,6	-	-	-		
59	OHX	23SA	3188	-	0,6,6	-	-	-		
59	OHX	16SA	2295	-	0,6,6	-	-	-		
59	OHX	23SB	3194	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	23SA	3274	-	0,6,6	-	-	-		
59	OHX	23SA	3253	-	0,6,6	-	-	-		
59	OHX	5SB	201	-	0,6,6	-	-	-		
59	OHX	5SA	213	-	0,6,6	-	-	-		
59	OHX	16SB	2220	-	0,6,6	-	-	-		
59	OHX	16SB	2223	-	0,6,6	-	-	-		
59	OHX	16SB	2221	-	0,6,6	-	-	-		
59	OHX	16SB	2240	-	0,6,6	-	-	-		
59	OHX	23SA	3337	-	0,6,6	-	-	-		
59	OHX	23SB	3083	-	0,6,6	-	-	-		
59	OHX	23SB	3131	-	0,6,6	-	-	-		
59	OHX	23SB	3130	-	0,6,6	-	-	-		
59	OHX	23SA	3321	-	0,6,6	-	-	-		
59	OHX	23SB	3157	-	0,6,6	-	-	-		
59	OHX	16SB	2247	-	0,6,6	-	-	-		
59	OHX	S4B	301	-	0,6,6	-	-	-		
59	OHX	23SA	3228	-	0,6,6	-	-	-		
59	OHX	23SA	3249	-	0,6,6	-	-	-		
59	OHX	23SA	3284	-	0,6,6	-	-	-		
59	OHX	23SB	3055	-	0,6,6	-	-	-		
59	OHX	23SA	3316	-	0,6,6	-	-	-		
59	OHX	23SB	3184	-	0,6,6	-	-	-		
59	OHX	23SA	3213	-	0,6,6	-	-	-		
59	OHX	23SB	3084	-	0,6,6	-	-	-		
59	OHX	23SA	3370	-	0,6,6	-	-	-		
59	OHX	23SA	3270	-	0,6,6	-	-	-		
59	OHX	23SA	3302	-	0,6,6	-	-	-		
59	OHX	23SA	3291	27	0,6,6	-	-	-		
59	OHX	23SA	3280	-	0,6,6	-	-	-		
59	OHX	23SB	3169	-	0,6,6	-	-	-		
59	OHX	23SA	3378	-	0,6,6	-	-	-		
59	OHX	23SB	3048	-	0,6,6	-	-	-		
59	OHX	23SB	3142	-	0,6,6	-	-	-		
59	OHX	16SA	2268	-	0,6,6	-	-	-		
59	OHX	TRNA	101	-	0,6,6	-	-	-		
59	OHX	ASIB	101	-	0,6,6	-	-	-		
59	OHX	16SB	2273	-	0,6,6	-	-	-		
59	OHX	L35B	101	-	0,6,6	-	-	-		
59	OHX	23SB	3165	-	0,6,6	-	-	-		
59	OHX	23SB	3033	-	0,6,6	-	-	-		
59	OHX	23SB	3132	-	0,6,6	-	-	-		
59	OHX	23SA	3363	-	0,6,6	-	-	-		
59	OHX	23SB	3167	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
59	OHX	23SA	3207	-	0,6,6	-	-	-		
59	OHX	23SA	3353	-	0,6,6	-	-	-		
59	OHX	PSIA	102	23	0,6,6	-	-	-		
59	OHX	23SA	3223	-	0,6,6	-	-	-		
59	OHX	16SB	2202	-	0,6,6	-	-	-		
59	OHX	16SA	2320	-	0,6,6	-	-	-		
59	OHX	16SB	2269	-	0,6,6	-	-	-		
59	OHX	23SA	3300	-	0,6,6	-	-	-		
59	OHX	23SA	3235	-	0,6,6	-	-	-		
59	OHX	23SA	3360	-	0,6,6	-	-	-		
59	OHX	23SB	3191	-	0,6,6	-	-	-		
59	OHX	23SA	3374	-	0,6,6	-	-	-		
59	OHX	23SA	3261	-	0,6,6	-	-	-		
59	OHX	16SA	2296	-	0,6,6	-	-	-		
59	OHX	23SA	3211	-	0,6,6	-	-	-		
59	OHX	16SA	2309	1	0,6,6	-	-	-		
59	OHX	16SB	2260	-	0,6,6	-	-	-		
59	OHX	5SB	211	-	0,6,6	-	-	-		
59	OHX	23SB	3173	-	0,6,6	-	-	-		
59	OHX	16SA	2277	-	0,6,6	-	-	-		
59	OHX	23SB	3059	-	0,6,6	-	-	-		
59	OHX	23SB	3164	-	0,6,6	-	-	-		
59	OHX	23SB	3071	-	0,6,6	-	-	-		
59	OHX	23SB	3166	-	0,6,6	-	-	-		
59	OHX	23SA	3222	-	0,6,6	-	-	-		
59	OHX	23SB	3092	-	0,6,6	-	-	-		
59	OHX	23SA	3364	-	0,6,6	-	-	-		
59	OHX	23SB	3052	-	0,6,6	-	-	-		
59	OHX	23SB	3108	-	0,6,6	-	-	-		
59	OHX	23SA	3278	-	0,6,6	-	-	-		
59	OHX	23SA	3272	-	0,6,6	-	-	-		
59	OHX	16SB	2225	-	0,6,6	-	-	-		
59	OHX	23SA	3314	-	0,6,6	-	-	-		
59	OHX	23SB	3160	-	0,6,6	-	-	-		
59	OHX	23SA	3264	-	0,6,6	-	-	-		
59	OHX	16SB	2244	-	0,6,6	-	-	-		
59	OHX	23SB	3065	62	0,6,6	-	-	-		
59	OHX	23SB	3053	-	0,6,6	-	-	-		
59	OHX	16SB	2236	-	0,6,6	-	-	-		
59	OHX	23SB	3018	-	0,6,6	-	-	-		
59	OHX	16SA	2288	-	0,6,6	-	-	-		
59	OHX	23SA	3257	-	0,6,6	-	-	-		
59	OHX	23SA	3377	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
59	OHX	16SA	2262	-	0,6,6	-	-	-		
59	OHX	23SB	3085	-	0,6,6	-	-	-		
59	OHX	23SB	3021	-	0,6,6	-	-	-		
59	OHX	23SB	3036	-	0,6,6	-	-	-		
59	OHX	23SA	3224	-	0,6,6	-	-	-		
59	OHX	23SB	3121	-	0,6,6	-	-	-		
59	OHX	23SA	3295	-	0,6,6	-	-	-		
59	OHX	23SB	3136	-	0,6,6	-	-	-		
59	OHX	23SA	3267	-	0,6,6	-	-	-		
59	OHX	16SA	2304	-	0,6,6	-	-	-		
59	OHX	16SA	2325	-	0,6,6	-	-	-		
59	OHX	23SB	3117	-	0,6,6	-	-	-		
59	OHX	23SA	3231	-	0,6,6	-	-	-		
59	OHX	23SB	3161	-	0,6,6	-	-	-		
59	OHX	16SB	2258	-	0,6,6	-	-	-		
59	OHX	16SA	2263	-	0,6,6	-	-	-		
59	OHX	23SA	3250	-	0,6,6	-	-	-		
59	OHX	23SA	3338	-	0,6,6	-	-	-		
59	OHX	16SA	2307	-	0,6,6	-	-	-		
59	OHX	16SA	2299	-	0,6,6	-	-	-		
59	OHX	16SA	2337	-	0,6,6	-	-	-		
59	OHX	23SA	3266	-	0,6,6	-	-	-		
59	OHX	23SA	3376	-	0,6,6	-	-	-		
59	OHX	23SB	3011	-	0,6,6	-	-	-		
59	OHX	23SB	3057	-	0,6,6	-	-	-		
59	OHX	23SA	3230	-	0,6,6	-	-	-		
59	OHX	16SB	2271	-	0,6,6	-	-	-		
59	OHX	16SB	2276	-	0,6,6	-	-	-		
59	OHX	23SB	3064	-	0,6,6	-	-	-		
59	OHX	23SB	3046	-	0,6,6	-	-	-		
59	OHX	23SA	3196	-	0,6,6	-	-	-		
59	OHX	23SB	3137	-	0,6,6	-	-	-		
59	OHX	23SB	3077	-	0,6,6	-	-	-		
59	OHX	23SA	3185	-	0,6,6	-	-	-		
59	OHX	23SA	3298	-	0,6,6	-	-	-		
59	OHX	23SB	3040	-	0,6,6	-	-	-		
59	OHX	16SB	2268	-	0,6,6	-	-	-		
59	OHX	23SA	3260	-	0,6,6	-	-	-		
59	OHX	23SA	3248	-	0,6,6	-	-	-		
59	OHX	23SA	3194	-	0,6,6	-	-	-		
59	OHX	16SA	2280	-	0,6,6	-	-	-		
59	OHX	16SA	2341	-	0,6,6	-	-	-		
59	OHX	23SA	3279	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	23SA	3227	-	0,6,6	-	-	-		
59	OHX	23SB	3006	-	0,6,6	-	-	-		
59	OHX	16SA	2266	1	0,6,6	-	-	-		
59	OHX	23SA	3330	-	0,6,6	-	-	-		
59	OHX	23SA	3344	-	0,6,6	-	-	-		
59	OHX	ESIA	101	-	0,6,6	-	-	-		
59	OHX	ASIB	102	-	0,6,6	-	-	-		
59	OHX	16SB	2274	-	0,6,6	-	-	-		
59	OHX	16SB	2212	-	0,6,6	-	-	-		
59	OHX	5SB	206	-	0,6,6	-	-	-		
59	OHX	23SA	3240	-	0,6,6	-	-	-		
59	OHX	16SA	2291	-	0,6,6	-	-	-		
59	OHX	23SA	3180	-	0,6,6	-	-	-		
59	OHX	23SB	3148	-	0,6,6	-	-	-		
59	OHX	23SB	3013	-	0,6,6	-	-	-		
59	OHX	23SA	3346	-	0,6,6	-	-	-		
59	OHX	16SB	2249	-	0,6,6	-	-	-		
59	OHX	23SA	3281	-	0,6,6	-	-	-		
59	OHX	16SB	2214	-	0,6,6	-	-	-		
59	OHX	23SB	3039	-	0,6,6	-	-	-		
59	OHX	23SB	3174	-	0,6,6	-	-	-		
59	OHX	23SB	3152	-	0,6,6	-	-	-		
59	OHX	16SA	2284	-	0,6,6	-	-	-		
59	OHX	16SB	2245	1	0,6,6	-	-	-		
59	OHX	23SA	3226	-	0,6,6	-	-	-		
59	OHX	23SB	3100	-	0,6,6	-	-	-		
59	OHX	L20B	201	-	0,6,6	-	-	-		
59	OHX	23SA	3216	-	0,6,6	-	-	-		
59	OHX	23SA	3352	-	0,6,6	-	-	-		
59	OHX	23SB	3025	-	0,6,6	-	-	-		
59	OHX	23SA	3368	-	0,6,6	-	-	-		
59	OHX	S4A	301	-	0,6,6	-	-	-		
59	OHX	23SB	3181	-	0,6,6	-	-	-		
59	OHX	23SA	3258	-	0,6,6	-	-	-		
59	OHX	5SA	209	-	0,6,6	-	-	-		
59	OHX	16SA	2285	-	0,6,6	-	-	-		
59	OHX	16SB	2254	-	0,6,6	-	-	-		
59	OHX	23SB	3058	-	0,6,6	-	-	-		
59	OHX	23SA	3292	-	0,6,6	-	-	-		
59	OHX	23SA	3221	-	0,6,6	-	-	-		
59	OHX	23SA	3255	-	0,6,6	-	-	-		
59	OHX	23SA	3217	-	0,6,6	-	-	-		
59	OHX	23SB	3177	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	16SB	2222	-	0,6,6	-	-	-		
59	OHX	23SB	3190	-	0,6,6	-	-	-		
59	OHX	16SB	2230	-	0,6,6	-	-	-		
59	OHX	16SA	2303	-	0,6,6	-	-	-		
59	OHX	23SB	3016	-	0,6,6	-	-	-		
59	OHX	23SB	3082	-	0,6,6	-	-	-		
59	OHX	23SA	3290	-	0,6,6	-	-	-		
59	OHX	16SA	2265	-	0,6,6	-	-	-		
59	OHX	16SB	2218	-	0,6,6	-	-	-		
59	OHX	23SA	3263	-	0,6,6	-	-	-		
59	OHX	23SA	3311	-	0,6,6	-	-	-		
59	OHX	L15A	201	-	0,6,6	-	-	-		
59	OHX	16SA	2287	-	0,6,6	-	-	-		
59	OHX	23SA	3283	-	0,6,6	-	-	-		
59	OHX	23SA	3206	-	0,6,6	-	-	-		
59	OHX	ASIB	103	-	0,6,6	-	-	-		
59	OHX	23SB	3060	-	0,6,6	-	-	-		
59	OHX	23SA	3282	-	0,6,6	-	-	-		
59	OHX	23SA	3355	-	0,6,6	-	-	-		
59	OHX	5SA	212	-	0,6,6	-	-	-		
59	OHX	23SA	3371	-	0,6,6	-	-	-		
59	OHX	23SA	3373	-	0,6,6	-	-	-		
59	OHX	23SB	3061	-	0,6,6	-	-	-		
59	OHX	23SB	3124	-	0,6,6	-	-	-		
59	OHX	23SA	3305	-	0,6,6	-	-	-		
59	OHX	23SA	3342	-	0,6,6	-	-	-		
59	OHX	23SA	3215	-	0,6,6	-	-	-		
59	OHX	23SA	3349	-	0,6,6	-	-	-		
59	OHX	16SA	2327	-	0,6,6	-	-	-		
59	OHX	23SB	3126	-	0,6,6	-	-	-		
59	OHX	23SA	3304	-	0,6,6	-	-	-		
59	OHX	23SB	3068	-	0,6,6	-	-	-		
59	OHX	ASIA	103	-	0,6,6	-	-	-		
59	OHX	16SA	2267	-	0,6,6	-	-	-		
59	OHX	23SA	3251	-	0,6,6	-	-	-		
59	OHX	16SA	2290	-	0,6,6	-	-	-		
59	OHX	23SA	3271	-	0,6,6	-	-	-		
59	OHX	23SB	3024	-	0,6,6	-	-	-		
59	OHX	16SA	2292	-	0,6,6	-	-	-		
59	OHX	16SA	2328	-	0,6,6	-	-	-		
59	OHX	23SB	3003	27	0,6,6	-	-	-		
59	OHX	23SB	3020	-	0,6,6	-	-	-		
59	OHX	23SB	3087	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	23SB	3182	27	0,6,6	-	-	-		
59	OHX	23SB	3188	-	0,6,6	-	-	-		
59	OHX	23SB	3095	-	0,6,6	-	-	-		
59	OHX	16SB	2228	-	0,6,6	-	-	-		
59	OHX	23SB	3140	-	0,6,6	-	-	-		
59	OHX	23SA	3195	-	0,6,6	-	-	-		
59	OHX	16SA	2286	-	0,6,6	-	-	-		
59	OHX	5SB	203	-	0,6,6	-	-	-		
59	OHX	23SB	3144	-	0,6,6	-	-	-		
59	OHX	16SB	2243	-	0,6,6	-	-	-		
59	OHX	5SA	205	-	0,6,6	-	-	-		
59	OHX	16SB	2229	-	0,6,6	-	-	-		
59	OHX	23SB	3076	-	0,6,6	-	-	-		
59	OHX	23SB	3075	-	0,6,6	-	-	-		
59	OHX	16SB	2266	-	0,6,6	-	-	-		
59	OHX	16SA	2310	-	0,6,6	-	-	-		
59	OHX	23SB	3109	-	0,6,6	-	-	-		
59	OHX	23SA	3193	-	0,6,6	-	-	-		
59	OHX	16SB	2238	-	0,6,6	-	-	-		
59	OHX	23SB	3155	-	0,6,6	-	-	-		
59	OHX	PSIB	101	-	0,6,6	-	-	-		
59	OHX	23SB	3081	-	0,6,6	-	-	-		
59	OHX	16SB	2224	-	0,6,6	-	-	-		
59	OHX	23SA	3331	-	0,6,6	-	-	-		
59	OHX	23SA	3380	-	0,6,6	-	-	-		
59	OHX	16SB	2255	-	0,6,6	-	-	-		
59	OHX	16SA	2302	-	0,6,6	-	-	-		
59	OHX	16SB	2275	-	0,6,6	-	-	-		
59	OHX	23SA	3210	-	0,6,6	-	-	-		
59	OHX	23SA	3313	-	0,6,6	-	-	-		
59	OHX	23SA	3244	-	0,6,6	-	-	-		
59	OHX	23SA	3356	-	0,6,6	-	-	-		
59	OHX	23SB	3035	-	0,6,6	-	-	-		
59	OHX	5SA	214	-	0,6,6	-	-	-		
59	OHX	23SB	3042	-	0,6,6	-	-	-		
59	OHX	23SA	3347	-	0,6,6	-	-	-		
59	OHX	16SA	2298	-	0,6,6	-	-	-		
59	OHX	16SA	2300	-	0,6,6	-	-	-		
59	OHX	23SB	3094	-	0,6,6	-	-	-		
59	OHX	L17B	201	-	0,6,6	-	-	-		
59	OHX	16SB	2250	-	0,6,6	-	-	-		
59	OHX	16SB	2241	-	0,6,6	-	-	-		
59	OHX	23SB	3179	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	23SB	3044	-	0,6,6	-	-	-		
59	OHX	MRNB	101	-	0,6,6	-	-	-		
59	OHX	23SB	3154	27	0,6,6	-	-	-		
59	OHX	16SB	2246	-	0,6,6	-	-	-		
59	OHX	23SA	3256	-	0,6,6	-	-	-		
59	OHX	23SB	3113	-	0,6,6	-	-	-		
59	OHX	16SB	2252	-	0,6,6	-	-	-		
59	OHX	23SB	3096	-	0,6,6	-	-	-		
59	OHX	23SB	3185	-	0,6,6	-	-	-		
59	OHX	16SB	2251	-	0,6,6	-	-	-		
59	OHX	23SB	3062	-	0,6,6	-	-	-		
59	OHX	16SA	2289	-	0,6,6	-	-	-		
59	OHX	23SA	3201	-	0,6,6	-	-	-		
59	OHX	16SA	2305	-	0,6,6	-	-	-		
59	OHX	23SB	3128	-	0,6,6	-	-	-		
59	OHX	16SB	2231	-	0,6,6	-	-	-		
59	OHX	23SA	3382	-	0,6,6	-	-	-		
59	OHX	23SA	3187	-	0,6,6	-	-	-		
59	OHX	23SB	3146	-	0,6,6	-	-	-		
59	OHX	16SA	2312	-	0,6,6	-	-	-		
59	OHX	L19A	201	41	0,6,6	-	-	-		
59	OHX	5SB	208	-	0,6,6	-	-	-		
59	OHX	23SA	3246	-	0,6,6	-	-	-		
59	OHX	16SA	2319	-	0,6,6	-	-	-		
59	OHX	16SA	2324	-	0,6,6	-	-	-		
59	OHX	23SA	3242	-	0,6,6	-	-	-		
59	OHX	23SB	3114	-	0,6,6	-	-	-		
59	OHX	16SA	2315	-	0,6,6	-	-	-		
59	OHX	23SA	3367	-	0,6,6	-	-	-		
59	OHX	23SB	3026	-	0,6,6	-	-	-		
59	OHX	23SB	3151	-	0,6,6	-	-	-		
59	OHX	16SA	2264	-	0,6,6	-	-	-		
59	OHX	23SA	3318	27	0,6,6	-	-	-		
59	OHX	23SB	3014	-	0,6,6	-	-	-		
59	OHX	23SA	3306	-	0,6,6	-	-	-		
59	OHX	23SA	3358	-	0,6,6	-	-	-		
59	OHX	23SB	3043	-	0,6,6	-	-	-		
59	OHX	23SB	3180	-	0,6,6	-	-	-		
59	OHX	23SB	3106	-	0,6,6	-	-	-		
59	OHX	23SB	3028	-	0,6,6	-	-	-		
59	OHX	23SB	3170	-	0,6,6	-	-	-		
59	OHX	23SB	3045	-	0,6,6	-	-	-		
59	OHX	23SA	3218	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
59	OHX	23SA	3245	-	0,6,6	-	-	-		
59	OHX	23SB	3158	-	0,6,6	-	-	-		
59	OHX	23SA	3199	-	0,6,6	-	-	-		
59	OHX	16SB	2208	-	0,6,6	-	-	-		
59	OHX	L4B	301	-	0,6,6	-	-	-		
59	OHX	16SA	2311	-	0,6,6	-	-	-		
59	OHX	16SA	2332	-	0,6,6	-	-	-		
59	OHX	23SB	3196	-	0,6,6	-	-	-		
59	OHX	23SA	3293	-	0,6,6	-	-	-		
59	OHX	23SB	3032	-	0,6,6	-	-	-		
59	OHX	16SB	2242	-	0,6,6	-	-	-		
59	OHX	23SB	3178	-	0,6,6	-	-	-		
59	OHX	23SB	3102	-	0,6,6	-	-	-		
59	OHX	16SA	2338	-	0,6,6	-	-	-		
61	SJE	23SA	3640	-	87,91,91	4.12	25 (28%)	117,134,134	2.02	28 (23%)
59	OHX	23SA	3190	27	0,6,6	-	-	-		
59	OHX	23SA	3212	-	0,6,6	-	-	-		
59	OHX	16SB	2265	-	0,6,6	-	-	-		
59	OHX	PSIB	102	-	0,6,6	-	-	-		
59	OHX	23SB	3101	-	0,6,6	-	-	-		
59	OHX	L20A	201	-	0,6,6	-	-	-		
59	OHX	23SA	3296	-	0,6,6	-	-	-		
59	OHX	23SB	3147	-	0,6,6	-	-	-		
59	OHX	23SB	3099	-	0,6,6	-	-	-		
59	OHX	23SB	3078	-	0,6,6	-	-	-		
59	OHX	16SA	2336	-	0,6,6	-	-	-		
59	OHX	16SB	2264	-	0,6,6	-	-	-		
59	OHX	23SB	3162	-	0,6,6	-	-	-		
59	OHX	23SB	3074	-	0,6,6	-	-	-		
59	OHX	23SB	3009	-	0,6,6	-	-	-		
59	OHX	23SB	3070	-	0,6,6	-	-	-		
59	OHX	23SA	3332	-	0,6,6	-	-	-		
59	OHX	16SB	2211	-	0,6,6	-	-	-		
59	OHX	16SA	2273	-	0,6,6	-	-	-		
59	OHX	23SA	3326	27	0,6,6	-	-	-		
59	OHX	23SB	3034	-	0,6,6	-	-	-		
59	OHX	23SB	3163	-	0,6,6	-	-	-		
59	OHX	23SA	3289	-	0,6,6	-	-	-		
59	OHX	23SA	3341	-	0,6,6	-	-	-		
59	OHX	23SA	3189	-	0,6,6	-	-	-		
59	OHX	23SB	3050	-	0,6,6	-	-	-		
59	OHX	5SB	204	-	0,6,6	-	-	-		
59	OHX	23SA	3252	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	OHX	23SB	3090	-	0,6,6	-	-	-		
59	OHX	L17A	201	-	0,6,6	-	-	-		
59	OHX	16SA	2283	-	0,6,6	-	-	-		

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
61	SJE	23SA	3640	-	-	40/101/161/161	0/5/5/5
61	SJE	23SB	3521	-	-	41/101/161/161	0/5/5/5

All (48) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
61	23SA	3640	SJE	O81-S78	20.69	1.67	1.43
61	23SB	3521	SJE	O79-S78	20.54	1.66	1.43
61	23SB	3521	SJE	O81-S78	20.44	1.66	1.43
61	23SA	3640	SJE	O79-S78	20.23	1.66	1.43
61	23SB	3521	SJE	O86-N85	11.19	1.41	1.22
61	23SA	3640	SJE	O86-N85	11.11	1.41	1.22
61	23SB	3521	SJE	S78-N80	10.10	1.77	1.61
61	23SA	3640	SJE	S78-N80	10.09	1.77	1.61
61	23SA	3640	SJE	C72-S78	7.59	1.88	1.77
61	23SA	3640	SJE	C70-N84	7.30	1.50	1.34
61	23SB	3521	SJE	C70-N84	7.24	1.50	1.34
61	23SB	3521	SJE	C72-S78	7.13	1.87	1.77
61	23SB	3521	SJE	O49-C70	6.57	1.48	1.34
61	23SA	3640	SJE	O49-C70	6.54	1.47	1.34
61	23SB	3521	SJE	C61-C10	5.74	1.62	1.52
61	23SA	3640	SJE	C61-C10	5.71	1.62	1.52
61	23SA	3640	SJE	O38-C31	5.69	1.47	1.34
61	23SB	3521	SJE	O38-C31	5.45	1.47	1.34
61	23SA	3640	SJE	C77-C72	4.62	1.43	1.40
61	23SB	3521	SJE	C77-C72	4.27	1.43	1.40
61	23SB	3521	SJE	O19-C20	3.71	1.44	1.34
61	23SA	3640	SJE	O19-C20	3.58	1.44	1.34
61	23SA	3640	SJE	C21-C20	3.55	1.57	1.50
61	23SB	3521	SJE	C21-C20	3.34	1.57	1.50
61	23SA	3640	SJE	C15-C16	-3.30	1.48	1.53
61	23SB	3521	SJE	C15-C16	-3.06	1.48	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
61	23SB	3521	SJE	C11-C10	-3.05	1.47	1.53
61	23SB	3521	SJE	C10-C9	-2.92	1.47	1.53
61	23SA	3640	SJE	C11-C10	-2.86	1.48	1.53
61	23SA	3640	SJE	O63-C3	2.84	1.49	1.42
61	23SB	3521	SJE	O38-C37	-2.82	1.40	1.44
61	23SA	3640	SJE	O19-C35	-2.81	1.40	1.44
61	23SA	3640	SJE	O6-C5	2.80	1.49	1.41
61	23SB	3521	SJE	O19-C35	-2.77	1.40	1.44
61	23SB	3521	SJE	O6-C5	2.72	1.48	1.41
61	23SA	3640	SJE	C83-N84	2.54	1.52	1.46
61	23SA	3640	SJE	O38-C37	-2.46	1.41	1.44
61	23SA	3640	SJE	O49-C27	-2.42	1.43	1.46
61	23SA	3640	SJE	C10-C9	-2.27	1.48	1.53
61	23SB	3521	SJE	C83-N84	2.25	1.51	1.46
61	23SB	3521	SJE	O7-C12	2.24	1.47	1.42
61	23SB	3521	SJE	O49-C27	-2.22	1.43	1.46
61	23SB	3521	SJE	C53-C30	2.19	1.57	1.54
61	23SB	3521	SJE	O63-C3	2.19	1.48	1.42
61	23SA	3640	SJE	C53-C30	2.16	1.57	1.54
61	23SA	3640	SJE	C3-C4	-2.13	1.47	1.52
61	23SA	3640	SJE	C77-N85	2.09	1.49	1.45
61	23SA	3640	SJE	O7-C12	2.06	1.47	1.42

All (50) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
61	23SA	3640	SJE	O81-S78-O79	-10.60	106.52	119.55
61	23SB	3521	SJE	O81-S78-O79	-9.38	108.02	119.55
61	23SA	3640	SJE	O49-C70-N84	6.47	119.59	109.99
61	23SB	3521	SJE	C18-C17-C16	6.16	119.28	109.19
61	23SB	3521	SJE	O49-C70-N84	6.05	118.97	109.99
61	23SB	3521	SJE	O19-C20-C21	5.43	121.44	111.46
61	23SA	3640	SJE	C72-S78-N80	5.39	114.83	107.82
61	23SB	3521	SJE	O6-C1-C2	4.81	118.16	109.52
61	23SB	3521	SJE	C72-S78-N80	4.64	113.84	107.82
61	23SA	3640	SJE	O19-C20-C21	4.51	119.74	111.46
61	23SB	3521	SJE	O71-C70-N84	-4.26	118.43	124.96
61	23SA	3640	SJE	O71-C70-N84	-4.17	118.57	124.96
61	23SA	3640	SJE	O13-C14-C15	4.09	115.40	109.14
61	23SA	3640	SJE	O6-C1-C2	3.75	116.25	109.52
61	23SA	3640	SJE	C3-C2-C1	3.72	118.19	110.12
61	23SB	3521	SJE	C10-C11-C12	-3.48	108.15	114.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
61	23SB	3521	SJE	O48-C33-C34	3.36	112.27	108.22
61	23SB	3521	SJE	C3-C2-C1	3.30	117.29	110.12
61	23SB	3521	SJE	O13-C18-C17	3.19	117.10	110.35
61	23SA	3640	SJE	C65-C1-C2	-3.07	107.41	113.07
61	23SA	3640	SJE	C56-C14-C15	-3.06	108.59	113.40
61	23SB	3521	SJE	O38-C31-C32	3.04	118.23	111.56
61	23SB	3521	SJE	O7-C8-C9	3.00	115.39	110.03
61	23SA	3640	SJE	C58-C8-C9	-2.89	107.64	112.57
61	23SA	3640	SJE	O81-S78-C72	2.84	112.33	107.66
61	23SB	3521	SJE	C58-C8-C9	-2.80	107.79	112.57
61	23SA	3640	SJE	C32-C33-C34	-2.78	104.99	113.05
61	23SA	3640	SJE	C18-C17-C16	2.78	113.73	109.19
61	23SA	3640	SJE	O6-C1-C65	2.78	112.69	106.70
61	23SA	3640	SJE	C10-C11-C12	-2.76	109.52	114.82
61	23SB	3521	SJE	C15-C16-C17	2.74	115.68	109.72
61	23SA	3640	SJE	C35-O19-C20	-2.72	113.01	117.53
61	23SA	3640	SJE	O48-C33-C34	2.66	111.43	108.22
61	23SB	3521	SJE	O22-C20-C21	-2.65	118.88	124.73
61	23SA	3640	SJE	C44-C30-C53	-2.62	106.50	112.45
61	23SB	3521	SJE	C56-C14-C15	-2.60	109.32	113.40
61	23SB	3521	SJE	O47-C29-C34	2.57	111.32	108.22
61	23SA	3640	SJE	C41-C26-C35	-2.56	107.11	112.92
61	23SA	3640	SJE	C45-C37-C36	-2.55	107.49	114.29
61	23SB	3521	SJE	C32-C33-C34	-2.48	105.86	113.05
61	23SA	3640	SJE	O38-C31-C32	2.47	116.98	111.56
61	23SB	3521	SJE	C83-N84-C70	-2.46	117.95	121.89
61	23SB	3521	SJE	C77-C72-S78	-2.44	121.40	124.39
61	23SB	3521	SJE	C30-C29-C34	-2.36	108.00	114.29
61	23SA	3640	SJE	C74-C73-C72	2.30	122.97	118.78
61	23SA	3640	SJE	C75-C76-C77	2.25	122.45	118.61
61	23SA	3640	SJE	C15-C16-C17	2.16	114.41	109.72
61	23SA	3640	SJE	C73-C72-C77	-2.11	117.85	119.91
61	23SA	3640	SJE	O49-C70-O71	-2.08	121.83	125.62
61	23SA	3640	SJE	C30-C29-C34	-2.02	108.89	114.29

There are no chirality outliers.

All (81) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
61	23SA	3640	SJE	C21-C20-O19-C35
61	23SA	3640	SJE	O22-C20-O19-C35
61	23SA	3640	SJE	C28-C26-C35-O19

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Mol	Chain	Res	Type	Atoms
61	23SA	3640	SJE	C41-C26-C35-O19
61	23SA	3640	SJE	C42-C27-C28-C26
61	23SA	3640	SJE	O49-C27-C28-O39
61	23SA	3640	SJE	C28-C27-C53-C30
61	23SA	3640	SJE	C42-C27-C53-C30
61	23SA	3640	SJE	O49-C27-C53-C30
61	23SA	3640	SJE	C34-C29-C30-C53
61	23SA	3640	SJE	O47-C29-C30-C53
61	23SA	3640	SJE	C30-C29-C34-C33
61	23SA	3640	SJE	C30-C29-C34-C54
61	23SA	3640	SJE	O47-C29-C34-C33
61	23SA	3640	SJE	O19-C35-C36-C43
61	23SA	3640	SJE	C73-C72-S78-N80
61	23SA	3640	SJE	C82-N80-S78-C72
61	23SA	3640	SJE	C82-N80-S78-O79
61	23SB	3521	SJE	C11-C12-O48-C33
61	23SB	3521	SJE	C21-C20-O19-C35
61	23SB	3521	SJE	O22-C20-O19-C35
61	23SB	3521	SJE	C28-C26-C35-O19
61	23SB	3521	SJE	C41-C26-C35-O19
61	23SB	3521	SJE	C42-C27-C28-C26
61	23SB	3521	SJE	O49-C27-C28-O39
61	23SB	3521	SJE	C28-C27-C53-C30
61	23SB	3521	SJE	C42-C27-C53-C30
61	23SB	3521	SJE	O49-C27-C53-C30
61	23SB	3521	SJE	C34-C29-C30-C53
61	23SB	3521	SJE	O47-C29-C30-C53
61	23SB	3521	SJE	C30-C29-C34-C33
61	23SB	3521	SJE	C30-C29-C34-C54
61	23SB	3521	SJE	O47-C29-C34-C33
61	23SB	3521	SJE	C72-C77-N85-O86
61	23SB	3521	SJE	C76-C77-N85-O86
61	23SB	3521	SJE	C82-N80-S78-C72
61	23SB	3521	SJE	C82-N80-S78-O79
61	23SA	3640	SJE	O71-C70-O49-C27
61	23SB	3521	SJE	O71-C70-O49-C27
61	23SA	3640	SJE	N84-C70-O49-C27
61	23SB	3521	SJE	N84-C70-O49-C27
61	23SA	3640	SJE	C73-C72-S78-O79
61	23SB	3521	SJE	C73-C72-S78-O79
61	23SB	3521	SJE	C73-C72-S78-N80
61	23SB	3521	SJE	O47-C29-C34-C54

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Mol	Chain	Res	Type	Atoms
61	23SB	3521	SJE	O7-C12-O48-C33
61	23SA	3640	SJE	C77-C72-S78-O79
61	23SB	3521	SJE	C77-C72-S78-O79
61	23SB	3521	SJE	O19-C35-C36-C43
61	23SA	3640	SJE	C26-C35-C36-C43
61	23SA	3640	SJE	C77-C72-S78-N80
61	23SA	3640	SJE	C76-C77-N85-O86
61	23SA	3640	SJE	C73-C72-S78-O81
61	23SA	3640	SJE	O47-C29-C34-C54
61	23SB	3521	SJE	C73-C72-S78-O81
61	23SA	3640	SJE	C11-C12-O48-C33
61	23SB	3521	SJE	C77-C72-S78-N80
61	23SA	3640	SJE	C4-C5-O52-C50
61	23SB	3521	SJE	C26-C35-C36-C43
61	23SA	3640	SJE	O7-C12-O48-C33
61	23SA	3640	SJE	O6-C5-O52-C50
61	23SA	3640	SJE	C77-C72-S78-O81
61	23SB	3521	SJE	C28-C26-C35-C36
61	23SA	3640	SJE	O19-C35-C36-C37
61	23SB	3521	SJE	C77-C72-S78-O81
61	23SA	3640	SJE	O47-C29-C30-C44
61	23SB	3521	SJE	O47-C29-C30-C44
61	23SA	3640	SJE	C28-C26-C35-C36
61	23SB	3521	SJE	C4-C5-O52-C50
61	23SB	3521	SJE	C82-N80-S78-O81
61	23SA	3640	SJE	C72-C77-N85-O86
61	23SB	3521	SJE	O19-C35-C36-C37
61	23SB	3521	SJE	O6-C5-O52-C50
61	23SA	3640	SJE	C34-C29-C30-C44
61	23SB	3521	SJE	C34-C29-C30-C44
61	23SB	3521	SJE	C20-C21-C23-C24
61	23SA	3640	SJE	C46-C32-C33-C34
61	23SB	3521	SJE	C41-C26-C35-C36
61	23SA	3640	SJE	C82-N80-S78-O81
61	23SA	3640	SJE	C41-C26-C35-C36
61	23SB	3521	SJE	O13-C18-O47-C29

There are no ring outliers.

2 monomers are involved in 7 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	S4A	301	OHX	5	0

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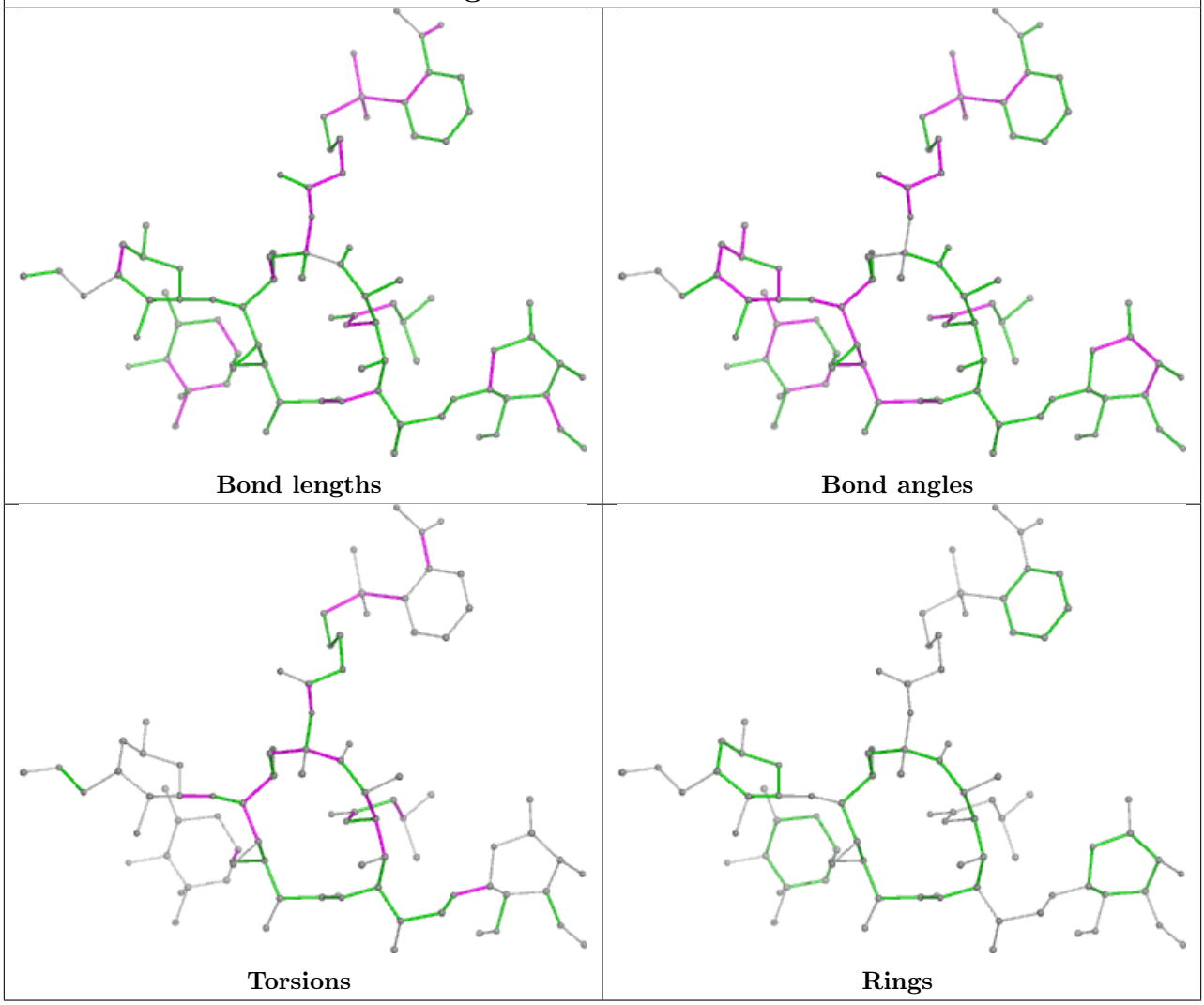
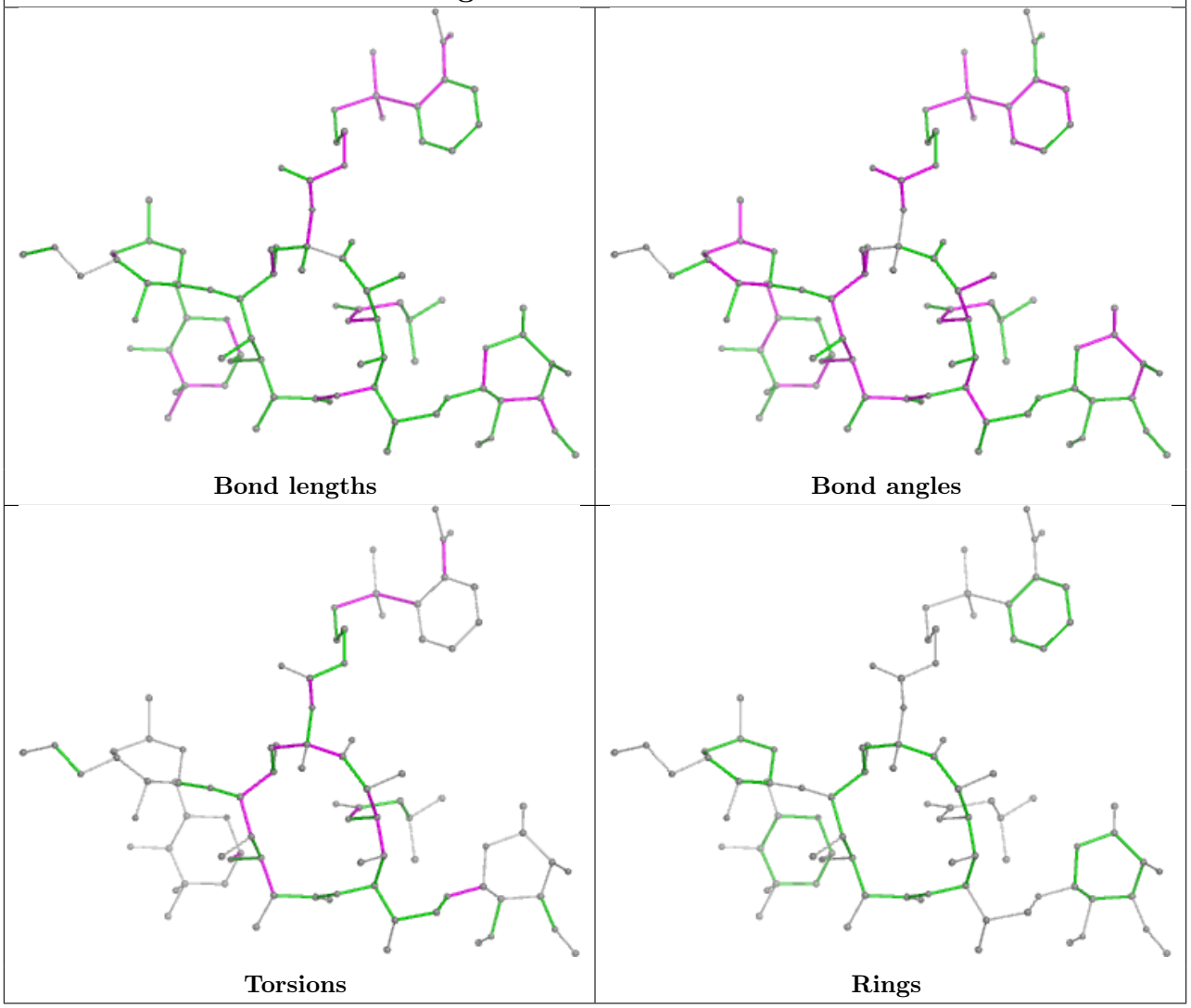
Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	23SA	3304	OHX	0	2

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 SJE 23SB 3521



Ligand SJE 23SA 3640



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	16SA	1500/1512 (99%)	-0.48	3 (0%)	92	88	45, 89, 170, 260	0
1	16SB	1496/1512 (98%)	-0.65	1 (0%)	92	91	57, 100, 164, 267	0
2	S2A	237/256 (92%)	0.43	8 (3%)	48	35	91, 125, 164, 178	0
2	S2B	237/256 (92%)	0.59	9 (3%)	44	33	105, 153, 186, 205	0
3	S3A	205/239 (85%)	0.44	6 (2%)	54	40	80, 100, 141, 168	0
3	S3B	206/239 (86%)	0.35	6 (2%)	54	40	104, 128, 157, 161	0
4	S4A	208/209 (99%)	0.45	10 (4%)	36	28	75, 97, 119, 128	0
4	S4B	208/209 (99%)	0.57	13 (6%)	27	22	79, 96, 117, 138	0
5	S5A	151/162 (93%)	0.32	2 (1%)	74	61	65, 87, 108, 132	0
5	S5B	151/162 (93%)	0.25	3 (1%)	64	50	86, 105, 123, 151	0
6	S6A	101/101 (100%)	0.38	3 (2%)	52	39	70, 91, 107, 124	0
6	S6B	101/101 (100%)	0.43	4 (3%)	43	32	73, 94, 109, 132	0
7	S7A	155/156 (99%)	0.16	7 (4%)	39	29	90, 105, 129, 138	0
7	S7B	155/156 (99%)	0.07	1 (0%)	85	78	30, 115, 151, 175	0
8	S8A	138/138 (100%)	0.01	0	100	100	75, 92, 104, 114	0
8	S8B	138/138 (100%)	-0.20	1 (0%)	84	75	83, 104, 115, 125	0
9	S9A	127/128 (99%)	0.08	4 (3%)	51	38	72, 121, 140, 144	0
9	S9B	127/128 (99%)	-0.28	0	100	100	77, 136, 152, 156	0
10	S10A	99/105 (94%)	0.14	3 (3%)	52	39	72, 124, 151, 154	0
10	S10B	99/105 (94%)	0.06	1 (1%)	79	68	104, 144, 159, 166	0
11	S11A	116/129 (89%)	0.26	2 (1%)	69	55	63, 90, 113, 142	0
11	S11B	117/129 (90%)	0.14	4 (3%)	48	35	76, 97, 122, 156	0
12	S12A	124/132 (93%)	0.41	8 (6%)	26	21	57, 66, 98, 162	0
12	S12B	124/132 (93%)	0.46	9 (7%)	22	19	69, 86, 112, 167	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	S13A	119/126 (94%)	0.23	7 (5%) 29 24	77, 113, 129, 138	0
13	S13B	121/126 (96%)	0.06	5 (4%) 42 31	100, 138, 150, 159	0
14	S14A	60/61 (98%)	0.07	1 (1%) 69 55	78, 90, 103, 117	0
14	S14B	59/61 (96%)	-0.04	1 (1%) 69 55	106, 119, 143, 146	0
15	S15A	88/89 (98%)	-0.01	0 100 100	65, 84, 108, 115	0
15	S15B	88/89 (98%)	-0.24	0 100 100	73, 96, 112, 119	0
16	S16A	83/88 (94%)	0.17	2 (2%) 59 44	86, 98, 118, 146	0
16	S16B	84/88 (95%)	0.05	1 (1%) 76 64	79, 88, 106, 144	0
17	S17A	100/105 (95%)	0.02	2 (2%) 64 50	74, 90, 101, 104	0
17	S17B	100/105 (95%)	-0.05	1 (1%) 79 68	80, 97, 114, 126	0
18	S18A	71/88 (80%)	0.35	3 (4%) 41 31	72, 88, 121, 148	0
18	S18B	70/88 (79%)	0.40	2 (2%) 54 40	80, 97, 125, 148	0
19	S19A	84/93 (90%)	0.62	10 (11%) 10 10	30, 114, 133, 139	0
19	S19B	86/93 (92%)	0.29	6 (6%) 24 20	125, 151, 177, 188	0
20	S20A	99/106 (93%)	0.13	1 (1%) 79 68	58, 105, 133, 139	0
20	S20B	99/106 (93%)	-0.17	1 (1%) 79 68	60, 103, 127, 133	0
21	THXA	24/27 (88%)	-0.33	0 100 100	92, 102, 114, 129	0
21	THXB	25/27 (92%)	-0.24	0 100 100	113, 127, 143, 148	0
22	ASIA	69/76 (90%)	1.78	28 (40%) 1 0	71, 185, 223, 237	0
23	PSIA	67/76 (88%)	0.21	6 (8%) 17 15	62, 86, 106, 154	0
23	PSIB	67/76 (88%)	-0.05	2 (2%) 52 39	73, 103, 134, 167	0
24	ESIA	75/76 (98%)	0.70	7 (9%) 16 15	61, 191, 216, 221	0
24	ESIB	75/76 (98%)	0.19	0 100 100	72, 196, 221, 233	0
25	MRNA	30/30 (100%)	0.89	4 (13%) 8 8	60, 150, 238, 250	0
25	MRNB	30/30 (100%)	0.19	2 (6%) 25 20	79, 168, 237, 243	0
26	TRNA	65/76 (85%)	0.31	3 (4%) 38 29	106, 176, 202, 216	0
27	23SA	2878/2911 (98%)	-0.76	12 (0%) 89 83	33, 60, 190, 262	0
27	23SB	2862/2911 (98%)	-0.54	20 (0%) 84 75	40, 76, 213, 270	0
28	5SA	122/124 (98%)	-0.81	0 100 100	57, 76, 92, 167	0
28	5SB	121/124 (97%)	-0.49	1 (0%) 82 72	80, 105, 137, 192	0
29	L2A	272/276 (98%)	-0.21	0 100 100	35, 52, 68, 81	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
29	L2B	272/276 (98%)	-0.25	2 (0%) 84 75	41, 62, 81, 92	0
30	L3A	204/206 (99%)	-0.09	2 (0%) 79 68	41, 68, 95, 114	0
30	L3B	204/206 (99%)	0.40	7 (3%) 48 35	49, 86, 115, 128	0
31	L4A	202/210 (96%)	-0.33	2 (0%) 79 68	35, 64, 94, 117	0
31	L4B	202/210 (96%)	0.13	6 (2%) 52 39	48, 85, 113, 129	0
32	L5A	181/182 (99%)	0.03	1 (0%) 85 78	70, 87, 114, 130	0
32	L5B	181/182 (99%)	0.12	3 (1%) 69 55	100, 119, 142, 152	0
33	L6A	171/180 (95%)	0.68	10 (5%) 30 24	30, 94, 113, 136	0
33	L6B	173/180 (96%)	1.92	78 (45%) 1 0	154, 201, 242, 260	0
34	L9A	145/148 (97%)	0.85	19 (13%) 8 8	61, 116, 131, 146	0
34	L9B	146/148 (98%)	0.92	30 (20%) 3 3	75, 116, 137, 150	0
35	L13A	138/140 (98%)	0.00	3 (2%) 62 47	51, 70, 102, 112	0
35	L13B	138/140 (98%)	1.07	24 (17%) 5 4	68, 101, 130, 136	0
36	L14A	122/122 (100%)	0.10	3 (2%) 58 43	44, 62, 75, 84	0
36	L14B	122/122 (100%)	0.46	4 (3%) 49 36	62, 81, 101, 112	0
37	L15A	150/150 (100%)	-0.22	0 100 100	38, 69, 99, 141	0
37	L15B	150/150 (100%)	-0.09	2 (1%) 74 61	49, 95, 127, 145	0
38	L16A	141/141 (100%)	0.11	6 (4%) 40 30	48, 66, 89, 120	0
38	L16B	141/141 (100%)	0.25	4 (2%) 55 40	58, 73, 93, 123	0
39	L17A	118/118 (100%)	-0.34	1 (0%) 82 72	49, 66, 85, 94	0
39	L17B	118/118 (100%)	-0.15	0 100 100	57, 75, 94, 111	0
40	L18A	112/112 (100%)	-0.02	1 (0%) 81 70	57, 72, 99, 115	0
40	L18B	111/112 (99%)	-0.12	0 100 100	73, 104, 141, 150	0
41	L19A	137/146 (93%)	0.14	2 (1%) 71 58	56, 73, 129, 158	0
41	L19B	137/146 (93%)	0.34	3 (2%) 62 47	72, 90, 167, 185	0
42	L20A	117/118 (99%)	-0.43	1 (0%) 81 70	43, 60, 88, 115	0
42	L20B	117/118 (99%)	0.66	17 (14%) 7 7	57, 94, 136, 149	0
43	L21A	101/101 (100%)	-0.10	1 (0%) 79 68	44, 81, 98, 110	0
43	L21B	101/101 (100%)	1.44	29 (28%) 1 1	58, 112, 128, 142	0
44	L22A	113/113 (100%)	-0.47	1 (0%) 81 70	43, 57, 88, 128	0
44	L22B	113/113 (100%)	0.19	2 (1%) 67 53	52, 65, 114, 147	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
45	L23A	93/96 (96%)	-0.35	0 100 100	44, 57, 75, 98	0
45	L23B	94/96 (97%)	-0.07	1 (1%) 77 66	58, 73, 98, 121	0
46	L24A	108/110 (98%)	0.02	2 (1%) 66 51	61, 87, 135, 151	0
46	L24B	106/110 (96%)	0.87	13 (12%) 9 9	66, 99, 145, 153	0
47	L25A	179/206 (86%)	0.39	11 (6%) 28 23	70, 104, 181, 189	0
47	L25B	176/206 (85%)	0.71	8 (4%) 39 29	107, 145, 224, 228	0
48	L27A	84/85 (98%)	-0.23	0 100 100	45, 59, 84, 104	0
48	L27B	84/85 (98%)	-0.12	4 (4%) 36 28	63, 79, 100, 128	0
49	L28A	97/98 (98%)	0.11	3 (3%) 51 38	43, 63, 110, 132	0
49	L28B	97/98 (98%)	0.14	3 (3%) 51 38	52, 75, 118, 132	0
50	L29A	69/72 (95%)	-0.01	0 100 100	50, 66, 81, 105	0
50	L29B	71/72 (98%)	0.03	2 (2%) 55 40	70, 89, 109, 138	0
51	L30A	59/60 (98%)	-0.30	0 100 100	48, 66, 96, 115	0
51	L30B	59/60 (98%)	0.40	2 (3%) 48 35	69, 90, 130, 146	0
52	L31A	71/71 (100%)	0.46	3 (4%) 41 31	95, 137, 172, 175	0
52	L31B	71/71 (100%)	0.12	0 100 100	123, 160, 188, 194	0
53	L32A	56/60 (93%)	-0.28	1 (1%) 67 53	38, 70, 126, 133	0
53	L32B	56/60 (93%)	0.46	3 (5%) 32 26	47, 78, 139, 150	0
54	L33A	45/54 (83%)	1.38	11 (24%) 2 1	106, 130, 157, 160	0
54	L33B	45/54 (83%)	0.40	0 100 100	129, 157, 182, 188	0
55	L34A	48/49 (97%)	-0.57	1 (2%) 63 48	37, 42, 57, 78	0
55	L34B	49/49 (100%)	-0.35	1 (2%) 64 50	42, 51, 97, 109	0
56	L35A	64/65 (98%)	-0.50	0 100 100	38, 54, 71, 93	0
56	L35B	64/65 (98%)	-0.12	0 100 100	30, 70, 91, 116	0
57	ASIB	72/76 (94%)	0.71	8 (11%) 12 11	98, 216, 254, 258	0
All	All	21108/21740 (97%)	-0.14	577 (2%) 56 41	30, 88, 176, 270	0

All (577) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
33	L6B	72	ILE	7.3
4	S4A	9	CYS	6.2
34	L9A	129	THR	6.2

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Mol	Chain	Res	Type	RSRZ
22	ASIA	1	G	6.0
12	S12A	44	LYS	5.9
35	L13B	133	GLN	5.8
43	L21B	36	PRO	5.7
27	23SB	2911	G	5.6
27	23SB	1110	G	5.5
22	ASIA	73	A	5.5
2	S2B	163	PHE	5.3
33	L6B	38	SER	5.0
33	L6B	113	VAL	5.0
22	ASIA	3	C	5.0
27	23SB	572	C	5.0
27	23SB	2912	A	5.0
19	S19B	88	LYS	5.0
33	L6B	148	ILE	4.9
33	L6B	114	VAL	4.9
33	L6B	174	GLY	4.9
13	S13A	119	GLY	4.9
30	L3B	57	LYS	4.9
33	L6B	131	VAL	4.8
28	5SB	90	C	4.8
33	L6B	84	SER	4.8
4	S4B	31	CYS	4.7
34	L9B	123	LEU	4.7
30	L3B	73	GLU	4.7
34	L9A	85	GLU	4.7
4	S4A	26	CYS	4.7
45	L23B	92	LEU	4.6
27	23SB	1139	G	4.6
19	S19B	84	GLY	4.5
4	S4A	31	CYS	4.5
35	L13A	96	GLU	4.5
4	S4B	24	GLU	4.5
22	ASIA	70	G	4.5
34	L9B	80	PRO	4.4
35	L13B	29	LYS	4.4
25	MRNA	56	U	4.4
43	L21B	5	VAL	4.4
4	S4B	26	CYS	4.4
33	L6B	103	LEU	4.3
13	S13A	120	LYS	4.3
26	TRNA	73	A	4.3

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Mol	Chain	Res	Type	RSRZ
12	S12B	29	PHE	4.3
22	ASIA	71	G	4.3
57	ASIB	1	G	4.2
43	L21B	38	LEU	4.2
4	S4B	12	CYS	4.2
48	L27B	4	LYS	4.2
48	L27B	7	LEU	4.2
36	L14B	13	ASN	4.2
4	S4B	86	LYS	4.2
19	S19A	85	LYS	4.2
34	L9A	68	LEU	4.1
35	L13B	1	MET	4.1
54	L33A	9	LEU	4.1
27	23SA	1111	G	4.1
25	MRNA	55	U	4.0
27	23SB	2913	C	4.0
13	S13A	107	ALA	3.9
33	L6B	107	VAL	3.9
2	S2B	37	ASN	3.9
34	L9B	84	GLY	3.9
46	L24B	40	GLU	3.9
11	S11A	12	ARG	3.9
22	ASIA	76	A	3.9
23	PSIA	1	G	3.8
34	L9B	140	LEU	3.8
4	S4B	9	CYS	3.8
19	S19A	42	PRO	3.8
33	L6B	11	VAL	3.8
33	L6B	115	VAL	3.8
34	L9B	135	GLU	3.8
46	L24B	101	LYS	3.8
43	L21B	71	LEU	3.8
27	23SB	1125	A	3.7
33	L6B	105	LEU	3.7
24	ESIA	14	A	3.7
2	S2B	165	VAL	3.7
54	L33A	22	ALA	3.7
19	S19A	44	MET	3.7
34	L9B	144	VAL	3.6
22	ASIA	72	C	3.6
33	L6B	35	VAL	3.6
1	16SA	727	U	3.6

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Mol	Chain	Res	Type	RSRZ
24	ESIA	1	G	3.6
42	L20B	91	ASP	3.6
33	L6B	24	VAL	3.6
2	S2A	188	ALA	3.6
2	S2A	118	LEU	3.5
5	S5A	10	MET	3.5
42	L20B	83	LEU	3.5
32	L5A	80	PHE	3.5
33	L6B	43	VAL	3.5
22	ASIA	12	U	3.5
34	L9A	140	LEU	3.5
33	L6B	102	ALA	3.5
9	S9A	127	LYS	3.5
22	ASIA	74	C	3.5
33	L6A	172	LYS	3.5
33	L6B	36	PRO	3.5
47	L25B	176	PRO	3.5
12	S12A	126	ALA	3.5
18	S18A	88	LYS	3.5
34	L9B	146	ALA	3.4
31	L4B	131	GLY	3.4
12	S12A	58	THR	3.4
34	L9B	145	VAL	3.4
49	L28A	84	GLY	3.4
34	L9A	113	ARG	3.4
34	L9A	114	LEU	3.4
30	L3B	204	ALA	3.4
2	S2B	196	LEU	3.4
54	L33A	34	LEU	3.4
34	L9B	83	ALA	3.4
33	L6B	45	VAL	3.4
36	L14A	108	GLU	3.4
33	L6A	34	GLU	3.3
34	L9B	122	GLU	3.3
43	L21B	48	GLY	3.3
10	S10A	59	SER	3.3
42	L20B	113	ALA	3.3
33	L6B	89	ILE	3.3
57	ASIB	6	G	3.3
2	S2A	115	LEU	3.3
46	L24A	101	LYS	3.3
25	MRNA	54	U	3.3

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Mol	Chain	Res	Type	RSRZ
13	S13B	4	ILE	3.3
7	S7B	80	VAL	3.3
13	S13A	117	VAL	3.3
22	ASIA	11	C	3.3
24	ESIA	13	C	3.3
57	ASIB	74	C	3.3
11	S11A	25	TYR	3.3
12	S12B	126	ALA	3.3
33	L6B	118	PRO	3.3
33	L6B	22	GLY	3.3
33	L6B	88	LEU	3.3
34	L9B	68	LEU	3.3
27	23SB	4	C	3.2
20	S20A	8	ARG	3.2
43	L21B	45	THR	3.2
33	L6B	151	ILE	3.2
33	L6A	82	GLY	3.2
33	L6B	71	LEU	3.2
37	L15B	46	LYS	3.2
47	L25A	107	THR	3.2
33	L6B	96	ALA	3.2
2	S2A	148	TYR	3.2
2	S2A	15	VAL	3.2
23	PSIB	1	G	3.2
38	L16B	1	MET	3.2
33	L6B	150	ALA	3.2
7	S7A	78	ARG	3.2
33	L6B	15	VAL	3.2
42	L20B	111	GLU	3.2
33	L6B	106	THR	3.2
24	ESIA	12	U	3.1
27	23SB	2910	U	3.1
53	L32B	53	ALA	3.1
1	16SB	1053	A	3.1
19	S19B	82	GLY	3.1
27	23SB	1137	G	3.1
32	L5B	155	MET	3.1
50	L29B	71	ASN	3.1
33	L6B	99	VAL	3.1
33	L6B	169	VAL	3.1
34	L9B	143	SER	3.1
43	L21B	12	TYR	3.1

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Mol	Chain	Res	Type	RSRZ
42	L20B	104	GLN	3.1
27	23SB	2914	C	3.1
34	L9B	92	VAL	3.1
57	ASIB	75	C	3.1
33	L6B	123	PHE	3.1
19	S19A	43	GLU	3.1
23	PSIB	70	G	3.1
34	L9A	111	PRO	3.1
34	L9A	109	ILE	3.1
33	L6B	129	THR	3.0
34	L9A	136	VAL	3.0
43	L21B	47	VAL	3.0
19	S19A	61	TYR	3.0
27	23SA	1125	A	3.0
33	L6B	26	VAL	3.0
12	S12B	59	SER	3.0
2	S2A	114	ARG	3.0
3	S3B	75	VAL	3.0
35	L13B	46	VAL	3.0
18	S18A	20	ALA	3.0
42	L20B	88	ILE	3.0
4	S4A	12	CYS	3.0
27	23SA	1118	A	3.0
1	16SA	726	U	3.0
25	MRNA	53	U	3.0
33	L6B	14	GLY	3.0
22	ASIA	17	C	2.9
30	L3B	40	GLU	2.9
33	L6B	154	PRO	2.9
36	L14B	91	LEU	2.9
49	L28A	85	LEU	2.9
43	L21B	26	ASP	2.9
38	L16A	1	MET	2.9
43	L21B	85	LYS	2.9
27	23SB	1814	A	2.9
34	L9B	139	GLN	2.9
20	S20B	8	ARG	2.9
16	S16B	78	GLY	2.9
33	L6B	13	LYS	2.9
33	L6B	85	LYS	2.9
49	L28B	64	ALA	2.9
27	23SB	5	A	2.9

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Mol	Chain	Res	Type	RSRZ
41	L19A	1	MET	2.9
43	L21B	35	LEU	2.9
33	L6B	133	VAL	2.9
19	S19A	32	LYS	2.9
34	L9A	141	LYS	2.9
33	L6B	95	ARG	2.9
46	L24B	106	LEU	2.9
54	L33A	10	LEU	2.9
26	TRNA	1	G	2.8
48	L27B	2	ALA	2.8
57	ASIB	70	G	2.8
43	L21B	32	THR	2.8
19	S19A	45	VAL	2.8
42	L20B	90	VAL	2.8
51	L30B	58	VAL	2.8
54	L33A	48	VAL	2.8
35	L13B	129	PRO	2.8
38	L16A	104	PHE	2.8
47	L25B	83	PRO	2.8
32	L5B	152	LEU	2.8
33	L6A	87	LEU	2.8
35	L13B	138	LEU	2.8
22	ASIA	68	C	2.8
33	L6B	37	VAL	2.8
43	L21B	52	VAL	2.8
34	L9A	139	GLN	2.8
16	S16A	19	ILE	2.8
12	S12A	125	ALA	2.8
23	PSIA	70	G	2.8
33	L6B	86	GLU	2.8
47	L25A	97	GLU	2.8
4	S4B	169	LYS	2.8
2	S2B	32	ILE	2.8
11	S11B	35	PRO	2.8
33	L6B	29	PRO	2.8
35	L13B	137	LYS	2.8
38	L16A	79	LEU	2.8
47	L25A	117	LEU	2.8
47	L25B	76	LEU	2.8
5	S5B	105	VAL	2.8
23	PSIA	5	G	2.8
35	L13B	60	ILE	2.8

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Mol	Chain	Res	Type	RSRZ
33	L6B	87	LEU	2.7
47	L25B	116	VAL	2.7
12	S12B	82	ILE	2.7
33	L6B	97	ARG	2.7
38	L16A	21	THR	2.7
54	L33A	23	THR	2.7
10	S10A	62	HIS	2.7
18	S18B	24	ALA	2.7
47	L25B	41	LEU	2.7
33	L6B	34	GLU	2.7
49	L28B	67	ILE	2.7
29	L2B	35	LYS	2.7
34	L9B	118	LYS	2.7
35	L13B	99	LEU	2.7
4	S4A	102	ASP	2.7
4	S4B	34	GLU	2.7
25	MRNB	57	U	2.7
24	ESIA	6	G	2.7
34	L9A	135	GLU	2.7
17	S17A	98	LEU	2.7
34	L9B	72	LEU	2.7
13	S13B	87	TYR	2.7
31	L4B	6	VAL	2.7
33	L6B	162	ILE	2.7
41	L19A	38	ASN	2.7
46	L24B	75	ILE	2.7
34	L9B	78	THR	2.7
6	S6B	101	ALA	2.7
22	ASIA	5	G	2.7
35	L13B	132	ALA	2.7
22	ASIA	26	A	2.7
33	L6B	19	VAL	2.7
43	L21B	91	TYR	2.7
33	L6B	16	SER	2.6
50	L29B	5	GLU	2.6
43	L21A	48	GLY	2.6
34	L9A	116	LEU	2.6
43	L21B	1	MET	2.6
22	ASIA	69	G	2.6
3	S3A	80	GLY	2.6
6	S6B	17	SER	2.6
9	S9A	126	SER	2.6

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Mol	Chain	Res	Type	RSRZ
34	L9B	76	THR	2.6
33	L6B	112	PRO	2.6
57	ASIB	71	G	2.6
12	S12A	60	GLY	2.6
42	L20B	94	ASN	2.6
57	ASIB	76	A	2.6
33	L6B	136	ILE	2.6
3	S3A	184	TYR	2.6
33	L6A	83	TYR	2.6
42	L20B	99	ALA	2.6
53	L32B	2	ALA	2.6
34	L9B	132	PRO	2.6
33	L6B	120	GLY	2.5
43	L21B	30	GLY	2.5
46	L24B	58	GLY	2.5
33	L6B	145	ALA	2.5
47	L25B	80	ARG	2.5
13	S13B	8	GLU	2.5
36	L14B	59	LYS	2.5
43	L21B	79	VAL	2.5
5	S5B	13	ILE	2.5
12	S12B	60	GLY	2.5
13	S13B	5	ALA	2.5
4	S4A	86	LYS	2.5
54	L33A	31	PRO	2.5
43	L21B	14	VAL	2.5
1	16SA	986	C	2.5
22	ASIA	2	C	2.5
22	ASIA	4	C	2.5
34	L9A	123	LEU	2.5
52	L31A	59	PHE	2.5
19	S19B	87	ALA	2.5
34	L9B	134	PRO	2.5
43	L21B	50	PRO	2.5
44	L22B	111	HIS	2.5
52	L31A	52	THR	2.5
13	S13A	114	ARG	2.5
34	L9A	80	PRO	2.5
43	L21B	51	VAL	2.5
33	L6B	32	GLU	2.5
6	S6A	16	GLN	2.5
31	L4B	77	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
22	ASIA	56	C	2.5
33	L6B	104	GLU	2.5
34	L9B	125	GLU	2.5
47	L25A	119	GLU	2.5
43	L21B	99	ILE	2.4
24	ESIA	34	G	2.4
42	L20A	106	PHE	2.4
47	L25B	79	ARG	2.4
19	S19A	79	THR	2.4
42	L20B	96	ALA	2.4
12	S12B	34	CYS	2.4
33	L6B	98	LEU	2.4
35	L13B	10	GLU	2.4
42	L20B	80	ILE	2.4
4	S4B	87	GLY	2.4
33	L6B	55	PRO	2.4
3	S3A	12	LEU	2.4
7	S7A	79	ARG	2.4
33	L6B	33	LEU	2.4
39	L17A	4	LEU	2.4
40	L18A	110	LEU	2.4
36	L14B	9	GLU	2.4
7	S7A	147	ALA	2.4
47	L25A	113	ALA	2.4
10	S10B	59	SER	2.4
2	S2B	187	LEU	2.4
27	23SA	929	G	2.4
27	23SB	2	G	2.4
43	L21B	15	GLU	2.4
43	L21B	93	GLU	2.4
46	L24B	29	GLU	2.4
27	23SA	681	A	2.4
4	S4B	127	THR	2.4
9	S9A	52	ALA	2.4
19	S19B	89	ALA	2.4
35	L13A	134	ARG	2.4
12	S12A	46	ASN	2.4
33	L6B	76	VAL	2.4
4	S4A	135	LEU	2.3
6	S6A	14	LEU	2.3
13	S13A	81	LEU	2.3
22	ASIA	25	C	2.3

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Mol	Chain	Res	Type	RSRZ
23	PSIA	4	C	2.3
23	PSIA	17	C	2.3
10	S10A	61	GLU	2.3
3	S3B	80	GLY	2.3
13	S13A	92	HIS	2.3
2	S2B	93	VAL	2.3
34	L9A	115	ALA	2.3
34	L9B	65	ALA	2.3
31	L4B	72	ARG	2.3
3	S3A	188	LEU	2.3
26	TRNA	34	G	2.3
29	L2B	212	SER	2.3
22	ASIA	13	C	2.3
30	L3B	3	GLY	2.3
35	L13B	57	ALA	2.3
33	L6B	130	ARG	2.3
7	S7A	156	TRP	2.3
41	L19B	35	LYS	2.3
31	L4B	78	ILE	2.3
6	S6A	84	ASN	2.3
33	L6B	81	GLU	2.3
33	L6B	124	GLU	2.3
19	S19A	84	GLY	2.3
38	L16B	140	ALA	2.3
47	L25A	173	ALA	2.3
42	L20B	109	LEU	2.3
2	S2A	108	ILE	2.3
57	ASIB	2	C	2.3
7	S7A	85	TYR	2.3
42	L20B	112	ARG	2.3
38	L16A	20	ALA	2.3
7	S7A	84	ASN	2.3
34	L9B	11	ASN	2.3
55	L34A	48	LYS	2.3
25	MRNB	56	U	2.3
38	L16B	104	PHE	2.3
17	S17A	101	ARG	2.3
17	S17B	91	ARG	2.3
54	L33A	27	LYS	2.3
14	S14A	59	ALA	2.3
33	L6B	135	GLY	2.3
6	S6B	31	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
34	L9B	10	GLU	2.3
31	L4B	139	PHE	2.2
22	ASIA	14	A	2.2
53	L32A	52	TYR	2.2
33	L6B	52	VAL	2.2
46	L24B	49	VAL	2.2
6	S6B	45	LEU	2.2
31	L4A	131	GLY	2.2
33	L6B	18	GLU	2.2
34	L9B	85	GLU	2.2
54	L33A	24	GLU	2.2
11	S11B	32	ILE	2.2
32	L5B	39	ILE	2.2
2	S2A	163	PHE	2.2
34	L9A	137	PRO	2.2
33	L6B	170	ARG	2.2
11	S11B	127	LYS	2.2
31	L4A	6	VAL	2.2
49	L28A	77	ALA	2.2
3	S3B	77	ILE	2.2
33	L6A	86	GLU	2.2
22	ASIA	49	C	2.2
27	23SB	161	G	2.2
46	L24B	108	THR	2.2
5	S5B	91	LEU	2.2
33	L6A	98	LEU	2.2
27	23SA	158	U	2.2
27	23SB	2600	U	2.2
43	L21B	3	ALA	2.2
47	L25A	7	ALA	2.2
35	L13B	36	GLY	2.2
2	S2B	39	ILE	2.2
34	L9B	79	ILE	2.2
42	L20B	65	ILE	2.2
27	23SA	1121	A	2.2
33	L6B	119	GLU	2.2
4	S4A	35	ARG	2.2
46	L24B	63	LYS	2.2
18	S18B	25	THR	2.2
33	L6A	35	VAL	2.2
43	L21B	40	LEU	2.2
27	23SA	2911	G	2.2

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Mol	Chain	Res	Type	RSRZ
27	23SB	2909	U	2.2
35	L13B	128	HIS	2.2
42	L20B	81	HIS	2.2
33	L6B	56	SER	2.2
41	L19B	1	MET	2.2
2	S2B	15	VAL	2.2
12	S12B	57	LEU	2.2
33	L6A	106	THR	2.2
33	L6B	165	ALA	2.1
43	L21B	31	ALA	2.1
33	L6B	82	GLY	2.1
46	L24A	104	GLY	2.1
38	L16B	68	ILE	2.1
22	ASIA	75	C	2.1
27	23SA	937	C	2.1
35	L13B	37	LYS	2.1
19	S19B	83	HIS	2.1
35	L13A	130	HIS	2.1
3	S3B	73	PRO	2.1
22	ASIA	6	G	2.1
22	ASIA	27	G	2.1
3	S3B	64	VAL	2.1
43	L21B	46	VAL	2.1
47	L25A	116	VAL	2.1
12	S12A	64	THR	2.1
35	L13B	93	THR	2.1
27	23SB	1094	A	2.1
12	S12A	16	ARG	2.1
35	L13B	119	ARG	2.1
47	L25B	81	ARG	2.1
55	L34B	49	ARG	2.1
27	23SB	1148	C	2.1
9	S9A	19	LEU	2.1
33	L6B	134	SER	2.1
30	L3B	187	ALA	2.1
4	S4A	90	GLY	2.1
11	S11B	36	ASP	2.1
34	L9A	84	GLY	2.1
34	L9B	138	ILE	2.1
22	ASIA	44	G	2.1
24	ESIA	27	G	2.1
27	23SA	1221	G	2.1

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Mol	Chain	Res	Type	RSRZ
42	L20B	82	GLY	2.1
46	L24B	41	GLY	2.1
37	L15B	18	ARG	2.1
12	S12B	81	LEU	2.1
33	L6B	21	PRO	2.1
33	L6B	39	PRO	2.1
3	S3A	153	VAL	2.1
51	L30B	59	VAL	2.1
23	PSIA	67	C	2.1
3	S3A	95	THR	2.1
4	S4B	126	ILE	2.1
44	L22B	92	ARG	2.1
35	L13B	8	GLN	2.1
46	L24B	81	LYS	2.1
54	L33A	26	ASN	2.1
33	L6B	12	PRO	2.1
35	L13B	130	HIS	2.1
13	S13B	74	VAL	2.1
36	L14A	54	GLU	2.1
46	L24B	64	GLU	2.1
33	L6B	27	LYS	2.1
47	L25A	171	ILE	2.1
49	L28B	92	LYS	2.1
44	L22A	112	GLY	2.1
30	L3B	55	ASN	2.1
27	23SA	2913	C	2.1
22	ASIA	50	U	2.1
8	S8B	112	LEU	2.1
30	L3A	1	MET	2.1
34	L9B	77	LEU	2.1
36	L14A	91	LEU	2.1
4	S4A	104	VAL	2.1
16	S16A	66	PRO	2.1
34	L9A	144	VAL	2.1
35	L13B	135	PRO	2.1
4	S4B	85	LYS	2.0
35	L13B	134	ARG	2.0
34	L9B	97	ILE	2.0
35	L13B	31	ALA	2.0
3	S3B	158	GLY	2.0
53	L32B	51	TYR	2.0
30	L3A	169	ASN	2.0

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Mol	Chain	Res	Type	RSRZ
14	S14B	44	LEU	2.0
18	S18A	31	LEU	2.0
35	L13B	91	LEU	2.0
4	S4B	29	PRO	2.0
5	S5A	128	PRO	2.0
12	S12B	63	VAL	2.0
33	L6B	173	PRO	2.0
38	L16A	91	GLU	2.0
42	L20B	87	GLY	2.0
34	L9B	129	THR	2.0
47	L25A	38	TYR	2.0
52	L31A	63	TYR	2.0
41	L19B	57	PHE	2.0
43	L21B	11	GLN	2.0
47	L25A	70	LEU	2.0
7	S7A	80	VAL	2.0
22	ASIA	24	G	2.0
33	L6B	44	VAL	2.0
35	L13B	40	PRO	2.0
19	S19A	81	ARG	2.0
43	L21B	19	LYS	2.0
48	L27B	3	HIS	2.0
54	L33A	53	LYS	2.0
33	L6A	40	GLU	2.0
27	23SB	1074	U	2.0
33	L6B	146	ALA	2.0
46	L24B	61	ILE	2.0
27	23SA	1123	C	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
26	H2U	TRNA	16	20/21	0.50	0.12	145,157,174,175	0
23	H2U	PSIB	16	20/21	0.60	0.12	109,134,154,162	0
26	PSU	TRNA	32	20/21	0.63	0.11	182,188,194,195	0
26	H2U	TRNA	20	20/21	0.63	0.10	145,163,173,181	0
22	PSU	ASIA	55	20/21	0.67	0.12	146,160,172,173	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
26	PSU	TRNA	55	20/21	0.67	0.09	143,151,170,173	0
26	4SU	TRNA	8	20/21	0.67	0.12	169,174,178,181	0
26	PSU	TRNA	39	20/21	0.68	0.10	134,167,176,179	0
57	5MU	ASIB	54	21/22	0.68	0.13	145,183,189,193	0
23	3AU	PSIB	47	27/28	0.69	0.13	127,146,156,158	0
23	5MU	PSIB	54	21/22	0.71	0.11	102,108,115,117	0
26	5MU	TRNA	54	21/22	0.73	0.09	151,158,162,164	0
22	4SU	ASIA	8	20/21	0.74	0.14	200,203,207,208	0
23	PSU	PSIB	55	20/21	0.76	0.10	100,105,112,112	0
24	MIA	ESIB	37	29/30	0.78	0.18	130,151,154,154	0
26	MIA	TRNA	37	29/30	0.79	0.17	115,135,154,162	0
23	G7M	PSIB	46	24/25	0.81	0.10	109,119,139,142	0
23	4SU	PSIB	8	20/21	0.81	0.10	101,106,116,120	0
22	G7M	ASIA	46	24/25	0.82	0.15	201,205,216,222	0
23	PSU	PSIA	55	20/21	0.84	0.09	84,89,100,103	0
23	3AU	PSIA	47	27/28	0.84	0.14	94,118,133,135	0
22	5MU	ASIA	54	21/22	0.85	0.12	113,137,147,148	0
1	2MG	16SB	1834	24/25	0.86	0.09	111,120,124,126	0
27	5MU	23SB	1940	21/22	0.87	0.10	85,92,102,106	0
57	PSU	ASIB	32	20/21	0.87	0.08	111,121,129,135	0
24	MIA	ESIA	37	29/30	0.87	0.14	120,144,148,150	0
12	0TD	S12B	89	10/11	0.88	0.14	82,85,91,98	0
12	0TD	S12A	89	10/11	0.89	0.17	59,65,68,72	0
57	PSU	ASIB	39	20/21	0.89	0.09	102,120,127,130	0
22	PSU	ASIA	39	20/21	0.89	0.14	77,88,95,99	0
23	5MU	PSIA	54	21/22	0.90	0.09	88,91,100,107	0
1	M2G	16SB	1589	25/26	0.90	0.09	81,91,96,102	0
23	G7M	PSIA	46	24/25	0.91	0.11	77,88,112,114	0
23	H2U	PSIA	16	20/21	0.91	0.10	91,111,134,148	0
1	PSU	16SB	1145	20/21	0.92	0.07	85,90,95,97	0
1	4OC	16SB	2030	22/23	0.92	0.09	68,75,81,95	0
27	5MC	23SB	1987	21/22	0.92	0.11	57,67,74,81	0
1	G7M	16SB	1156	24/25	0.92	0.10	78,83,90,91	0
1	PSU	16SA	1145	20/21	0.92	0.11	69,74,79,81	0
1	5MC	16SB	1590	21/22	0.92	0.08	83,90,96,102	0
22	PSU	ASIA	32	20/21	0.93	0.11	82,90,97,98	0
23	PSU	PSIA	32	20/21	0.93	0.08	67,71,75,79	0
27	OMU	23SB	2567	21/22	0.93	0.11	57,64,67,71	0
1	5MC	16SB	2028	21/22	0.93	0.09	78,84,87,90	0
27	PSU	23SB	1936	20/21	0.93	0.07	72,79,83,85	0
27	5MU	23SA	1940	21/22	0.93	0.11	60,67,75,81	0
27	PSU	23SB	1942	20/21	0.94	0.07	76,81,86,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
22	MIA	ASIA	37	29/30	0.94	0.12	64,70,77,79	0
27	PSU	23SA	1936	20/21	0.94	0.11	57,59,62,70	0
23	PSU	PSIB	32	20/21	0.94	0.08	86,91,97,102	0
57	MIA	ASIB	37	29/30	0.94	0.08	83,96,107,111	0
23	PSU	PSIB	39	20/21	0.94	0.06	80,86,90,93	0
1	5MC	16SA	1590	21/22	0.94	0.09	65,69,73,81	0
27	5MC	23SA	1967	21/22	0.95	0.10	51,55,61,69	0
1	5MC	16SA	2032	21/22	0.95	0.13	51,53,60,61	0
27	OMG	23SB	2266	24/25	0.95	0.09	53,58,63,65	0
23	4SU	PSIA	8	20/21	0.95	0.07	72,75,81,83	0
27	PSU	23SB	2620	20/21	0.95	0.09	48,54,60,64	0
1	G7M	16SA	1156	24/25	0.95	0.12	58,67,71,77	0
23	MIA	PSIB	37	29/30	0.95	0.09	82,87,100,103	0
1	2MG	16SA	1834	24/25	0.95	0.07	77,83,87,89	0
27	5MU	23SA	1964	21/22	0.95	0.09	38,44,49,54	0
27	OMC	23SB	1945	21/22	0.96	0.07	69,77,79,81	0
1	UR3	16SA	2121	21/22	0.96	0.11	51,54,60,68	0
27	5MU	23SB	1964	21/22	0.96	0.08	55,59,67,70	0
23	PSU	PSIA	39	20/21	0.96	0.07	59,66,69,69	0
27	5MC	23SB	1967	21/22	0.96	0.07	66,73,78,88	0
27	5MC	23SA	1987	21/22	0.96	0.10	46,50,55,59	0
1	5MC	16SA	2028	21/22	0.96	0.09	54,65,68,71	0
1	M2G	16SA	1589	25/26	0.96	0.07	59,65,72,74	0
27	2MA	23SA	2518	23/24	0.96	0.09	34,40,44,50	0
1	5MC	16SB	2032	21/22	0.96	0.07	63,69,74,76	0
1	UR3	16SB	2121	21/22	0.96	0.09	59,66,70,72	0
1	MA6	16SB	2141	24/25	0.96	0.08	68,74,77,79	0
1	MA6	16SB	2142	24/25	0.96	0.09	65,71,74,77	0
23	MIA	PSIA	37	29/30	0.96	0.09	57,65,80,85	0
27	OMC	23SA	1945	21/22	0.96	0.09	53,55,58,61	0
27	2MA	23SB	2518	23/24	0.97	0.09	45,48,52,53	0
27	OMU	23SA	2567	21/22	0.97	0.09	42,48,52,58	0
1	4OC	16SA	2030	22/23	0.97	0.10	56,60,64,67	0
27	PSU	23SA	2620	20/21	0.97	0.06	44,47,53,57	0
1	MA6	16SA	2142	24/25	0.97	0.09	49,52,54,59	0
1	5MC	16SB	2035	21/22	0.97	0.07	64,69,73,76	0
27	OMG	23SA	2266	24/25	0.97	0.07	40,45,49,51	0
27	PSU	23SA	1942	20/21	0.97	0.11	57,63,68,68	0
1	5MC	16SA	2035	21/22	0.97	0.12	45,54,59,62	0
1	MA6	16SA	2141	24/25	0.98	0.08	49,52,55,56	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
58	MG	23SB	3320	1/1	-0.17	0.15	112,112,112,112	0
58	MG	16SA	2250	1/1	0.29	0.14	114,114,114,114	0
58	MG	23SB	3328	1/1	0.30	0.37	102,102,102,102	0
60	K	23SA	3594	1/1	0.31	0.30	127,127,127,127	0
58	MG	16SB	2304[B]	1/1	0.35	0.46	56,56,56,56	1
58	MG	16SB	2304[A]	1/1	0.35	0.46	59,59,59,59	1
58	MG	23SA	3152	1/1	0.39	0.27	95,95,95,95	0
60	K	S4B	302	1/1	0.47	0.21	115,115,115,115	0
58	MG	16SB	2313	1/1	0.48	0.19	142,142,142,142	0
58	MG	16SA	2213	1/1	0.50	0.29	103,103,103,103	0
60	K	23SB	3492	1/1	0.51	0.09	146,146,146,146	0
58	MG	23SB	3314	1/1	0.52	0.17	89,89,89,89	0
60	K	16SA	2383	1/1	0.53	0.14	123,123,123,123	0
58	MG	16SA	2245	1/1	0.54	0.29	71,71,71,71	0
58	MG	23SB	3262[B]	1/1	0.56	0.38	59,59,59,59	1
58	MG	23SB	3262[A]	1/1	0.56	0.38	55,55,55,55	1
58	MG	23SB	3212	1/1	0.57	0.23	83,83,83,83	0
58	MG	16SB	2343	1/1	0.57	0.12	148,148,148,148	0
58	MG	23SB	3318	1/1	0.58	0.17	88,88,88,88	0
60	K	16SA	2403	1/1	0.58	0.15	84,84,84,84	0
60	K	23SA	3539	1/1	0.58	0.10	125,125,125,125	0
58	MG	16SA	2242	1/1	0.59	0.14	93,93,93,93	0
60	K	23SB	3519	1/1	0.59	0.15	119,119,119,119	0
58	MG	23SA	3110	1/1	0.60	0.28	109,109,109,109	0
60	K	S20B	201	1/1	0.61	0.10	121,121,121,121	0
58	MG	16SA	2246	1/1	0.61	0.08	100,100,100,100	0
58	MG	23SA	3177	1/1	0.61	0.14	91,91,91,91	0
58	MG	23SA	3127	1/1	0.62	0.18	107,107,107,107	0
60	K	23SA	3634	1/1	0.62	0.15	104,104,104,104	0
58	MG	23SA	3137	1/1	0.62	0.12	89,89,89,89	0
58	MG	23SB	3311	1/1	0.63	0.23	75,75,75,75	0
58	MG	23SB	3293	1/1	0.63	0.33	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	K	23SA	3548	1/1	0.64	0.20	100,100,100,100	0
60	K	23SA	3549	1/1	0.64	0.10	104,104,104,104	0
58	MG	23SB	3285	1/1	0.64	0.29	77,77,77,77	0
58	MG	23SA	3103	1/1	0.64	0.15	85,85,85,85	0
58	MG	16SA	2241	1/1	0.65	0.28	81,81,81,81	0
60	K	L15B	202	1/1	0.65	0.14	96,96,96,96	0
60	K	16SB	2364	1/1	0.66	0.10	132,132,132,132	0
60	K	16SA	2376	1/1	0.66	0.13	106,106,106,106	0
58	MG	16SA	2223	1/1	0.66	0.15	102,102,102,102	0
58	MG	16SB	2323	1/1	0.67	0.15	92,92,92,92	0
58	MG	16SA	2255	1/1	0.67	0.25	82,82,82,82	0
58	MG	16SB	2322	1/1	0.67	0.16	99,99,99,99	0
60	K	23SA	3563	1/1	0.67	0.13	83,83,83,83	0
60	K	16SA	2395	1/1	0.68	0.14	105,105,105,105	0
58	MG	23SA	3013	1/1	0.68	0.31	69,69,69,69	0
58	MG	16SB	2317	1/1	0.69	0.19	98,98,98,98	0
58	MG	16SB	2314	1/1	0.70	0.22	99,99,99,99	0
58	MG	16SA	2238	1/1	0.70	0.18	118,118,118,118	0
58	MG	PSIB	105	1/1	0.70	0.24	78,78,78,78	0
58	MG	16SA	2258	1/1	0.70	0.26	95,95,95,95	0
60	K	16SB	2395	1/1	0.70	0.12	103,103,103,103	0
60	K	23SA	3575	1/1	0.71	0.12	68,68,68,68	0
60	K	L3B	303	1/1	0.71	0.13	98,98,98,98	0
60	K	23SA	3545	1/1	0.71	0.16	103,103,103,103	0
58	MG	16SA	2237	1/1	0.72	0.32	62,62,62,62	0
58	MG	23SB	3286	1/1	0.72	0.26	65,65,65,65	0
58	MG	16SB	2309	1/1	0.72	0.27	77,77,77,77	0
58	MG	23SA	3015	1/1	0.72	0.46	91,91,91,91	0
60	K	23SB	3515	1/1	0.72	0.08	88,88,88,88	0
58	MG	23SA	3100	1/1	0.72	0.15	66,66,66,66	0
58	MG	16SA	2234	1/1	0.72	0.27	83,83,83,83	0
58	MG	16SA	2249	1/1	0.72	0.25	77,77,77,77	0
58	MG	5SB	213	1/1	0.73	0.12	79,79,79,79	0
58	MG	23SA	3154	1/1	0.73	0.20	59,59,59,59	0
60	K	23SA	3611	1/1	0.73	0.12	118,118,118,118	0
58	MG	S5B	201	1/1	0.73	0.19	96,96,96,96	0
58	MG	23SA	3034	1/1	0.73	0.13	60,60,60,60	0
60	K	16SB	2370	1/1	0.73	0.09	135,135,135,135	0
58	MG	23SB	3276	1/1	0.73	0.30	82,82,82,82	0
60	K	23SB	3442	1/1	0.74	0.15	112,112,112,112	0
60	K	23SB	3481	1/1	0.74	0.13	105,105,105,105	0
58	MG	23SA	3159	1/1	0.74	0.16	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SA	3099	1/1	0.74	0.11	80,80,80,80	0
58	MG	23SB	3309	1/1	0.74	0.33	77,77,77,77	0
60	K	16SA	2384	1/1	0.74	0.17	106,106,106,106	0
58	MG	16SA	2224	1/1	0.74	0.17	73,73,73,73	0
60	K	16SA	2408	1/1	0.75	0.17	89,89,89,89	0
58	MG	16SB	2294	1/1	0.75	0.20	77,77,77,77	0
58	MG	16SB	2324	1/1	0.75	0.17	86,86,86,86	0
60	K	23SA	3638	1/1	0.75	0.11	104,104,104,104	0
60	K	23SB	3513	1/1	0.75	0.08	127,127,127,127	0
58	MG	23SA	3088	1/1	0.75	0.15	72,72,72,72	0
58	MG	16SB	2315	1/1	0.75	0.25	85,85,85,85	0
58	MG	23SA	3142	1/1	0.75	0.28	36,36,36,36	0
58	MG	16SB	2284	1/1	0.75	0.20	84,84,84,84	0
60	K	23SA	3542	1/1	0.76	0.10	105,105,105,105	0
58	MG	16SA	2239	1/1	0.76	0.15	84,84,84,84	0
58	MG	23SB	3419	1/1	0.76	0.15	99,99,99,99	0
58	MG	23SB	3315	1/1	0.76	0.09	58,58,58,58	0
60	K	23SA	3560	1/1	0.76	0.08	89,89,89,89	0
58	MG	PSIB	104	1/1	0.76	0.30	79,79,79,79	0
60	K	16SA	2415	1/1	0.76	0.09	89,89,89,89	0
58	MG	23SA	3095	1/1	0.76	0.13	67,67,67,67	0
58	MG	16SA	2232	1/1	0.77	0.33	66,66,66,66	0
60	K	23SB	3493	1/1	0.77	0.16	98,98,98,98	0
58	MG	23SA	3059	1/1	0.77	0.20	77,77,77,77	0
60	K	16SA	2404	1/1	0.77	0.10	114,114,114,114	0
58	MG	16SA	2252	1/1	0.77	0.21	86,86,86,86	0
58	MG	23SB	3268	1/1	0.77	0.14	66,66,66,66	0
58	MG	L30A	101	1/1	0.77	0.16	54,54,54,54	0
59	OHX	23SB	3192	7/7	0.78	0.10	169,174,178,271	0
60	K	16SB	2388	1/1	0.78	0.08	119,119,119,119	0
60	K	16SB	2393	1/1	0.78	0.09	96,96,96,96	0
59	OHX	23SB	3193	7/7	0.78	0.11	132,147,161,243	0
60	K	16SB	2396	1/1	0.78	0.15	92,92,92,92	0
58	MG	23SA	3130	1/1	0.78	0.15	61,61,61,61	0
60	K	S14B	102	1/1	0.78	0.08	116,116,116,116	0
58	MG	16SB	2295	1/1	0.78	0.27	66,66,66,66	0
58	MG	23SB	3239	1/1	0.78	0.27	50,50,50,50	0
60	K	16SA	2386	1/1	0.78	0.15	117,117,117,117	0
58	MG	23SB	3310	1/1	0.78	0.31	79,79,79,79	0
58	MG	23SB	3283	1/1	0.78	0.34	72,72,72,72	0
60	K	23SB	3511	1/1	0.78	0.09	119,119,119,119	0
58	MG	16SB	2287	1/1	0.78	0.19	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	K	23SA	3632	1/1	0.78	0.11	116,116,116,116	0
59	OHX	16SA	2315	7/7	0.78	0.11	101,111,120,229	0
59	OHX	23SA	3308	7/7	0.78	0.12	78,95,108,232	0
59	OHX	23SA	3352	7/7	0.78	0.12	140,147,169,246	0
58	MG	16SA	2211	1/1	0.79	0.28	70,70,70,70	0
59	OHX	23SB	3163	7/7	0.79	0.11	127,143,150,243	0
58	MG	23SA	3023	1/1	0.79	0.20	77,77,77,77	0
58	MG	23SB	3281	1/1	0.79	0.20	77,77,77,77	0
58	MG	16SA	2230	1/1	0.79	0.30	60,60,60,60	0
58	MG	23SA	3037	1/1	0.79	0.15	88,88,88,88	0
58	MG	23SB	3322	1/1	0.79	0.18	72,72,72,72	0
58	MG	16SA	2254	1/1	0.79	0.31	67,67,67,67	0
58	MG	23SB	3332	1/1	0.79	0.26	67,67,67,67	0
58	MG	23SB	3253	1/1	0.79	0.10	78,78,78,78	0
60	K	23SB	3501	1/1	0.79	0.12	84,84,84,84	0
60	K	23SB	3509	1/1	0.79	0.28	102,102,102,102	0
58	MG	23SB	3300	1/1	0.79	0.16	67,67,67,67	0
58	MG	16SB	2333	1/1	0.79	0.27	88,88,88,88	0
58	MG	23SA	3065	1/1	0.79	0.21	56,56,56,56	0
60	K	16SA	2416	1/1	0.79	0.13	86,86,86,86	0
60	K	16SA	2418	1/1	0.79	0.18	97,97,97,97	0
60	K	L5B	202	1/1	0.79	0.09	110,110,110,110	0
60	K	S20A	201	1/1	0.79	0.08	123,123,123,123	0
58	MG	16SA	2218	1/1	0.80	0.40	78,78,78,78	0
58	MG	16SB	2326	1/1	0.80	0.39	78,78,78,78	0
58	MG	23SB	3301	1/1	0.80	0.16	75,75,75,75	0
58	MG	16SB	2281	1/1	0.80	0.23	81,81,81,81	0
59	OHX	16SB	2261	7/7	0.80	0.10	136,151,159,251	0
58	MG	23SB	3284	1/1	0.80	0.32	69,69,69,69	0
58	MG	23SB	3209	1/1	0.80	0.33	63,63,63,63	0
60	K	23SA	3547	1/1	0.80	0.11	72,72,72,72	0
60	K	16SA	2405	1/1	0.80	0.10	115,115,115,115	0
58	MG	23SA	3101	1/1	0.80	0.34	73,73,73,73	0
60	K	23SA	3554	1/1	0.81	0.14	87,87,87,87	0
58	MG	23SA	3532	1/1	0.81	0.08	100,100,100,100	0
58	MG	23SA	3086	1/1	0.81	0.19	71,71,71,71	0
58	MG	23SB	3201	1/1	0.81	0.22	72,72,72,72	0
60	K	23SB	3467	1/1	0.81	0.24	106,106,106,106	0
59	OHX	23SA	3362	7/7	0.81	0.12	102,109,127,232	0
60	K	23SA	3595	1/1	0.81	0.13	71,71,71,71	0
58	MG	16SA	2221	1/1	0.81	0.28	62,62,62,62	0
58	MG	16SA	2236	1/1	0.81	0.16	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	23SB	3177	7/7	0.81	0.12	117,128,145,232	0
58	MG	16SB	2325	1/1	0.81	0.23	92,92,92,92	0
58	MG	23SA	3067	1/1	0.81	0.33	71,71,71,71	0
58	MG	23SB	3297	1/1	0.81	0.25	68,68,68,68	0
58	MG	16SB	2290	1/1	0.81	0.20	79,79,79,79	0
58	MG	23SB	3399	1/1	0.81	0.11	88,88,88,88	0
58	MG	23SA	3427	1/1	0.81	0.12	53,53,53,53	0
58	MG	16SB	2316	1/1	0.81	0.21	80,80,80,80	0
58	MG	23SB	3319	1/1	0.82	0.12	83,83,83,83	0
60	K	23SA	3544	1/1	0.82	0.08	91,91,91,91	0
58	MG	16SB	2327	1/1	0.82	0.20	93,93,93,93	0
60	K	16SB	2398	1/1	0.82	0.09	101,101,101,101	0
58	MG	23SA	3089	1/1	0.82	0.17	77,77,77,77	0
58	MG	23SB	3257	1/1	0.82	0.26	62,62,62,62	0
58	MG	23SB	3258	1/1	0.82	0.18	72,72,72,72	0
58	MG	16SA	2235	1/1	0.82	0.31	80,80,80,80	0
60	K	23SB	3462	1/1	0.82	0.13	102,102,102,102	0
58	MG	5SA	201	1/1	0.82	0.16	67,67,67,67	0
58	MG	23SB	3303	1/1	0.82	0.15	66,66,66,66	0
58	MG	23SB	3267	1/1	0.82	0.16	63,63,63,63	0
59	OHX	16SA	2333	7/7	0.82	0.10	128,146,168,234	0
58	MG	23SA	3055	1/1	0.82	0.19	51,51,51,51	0
60	K	23SA	3608	1/1	0.82	0.09	80,80,80,80	0
58	MG	16SA	2243	1/1	0.82	0.23	89,89,89,89	0
59	OHX	23SA	3353	7/7	0.82	0.11	128,135,151,244	0
58	MG	23SA	3176	1/1	0.82	0.34	63,63,63,63	0
59	OHX	23SA	3382	7/7	0.82	0.10	86,97,101,238	0
58	MG	23SA	3060	1/1	0.82	0.22	63,63,63,63	0
60	K	PSIA	105	1/1	0.82	0.11	100,100,100,100	0
58	MG	16SB	2288	1/1	0.82	0.28	70,70,70,70	0
58	MG	23SA	3109	1/1	0.83	0.18	55,55,55,55	0
58	MG	23SB	3295	1/1	0.83	0.19	57,57,57,57	0
58	MG	23SA	3148	1/1	0.83	0.06	64,64,64,64	0
58	MG	23SB	3360	1/1	0.83	0.18	111,111,111,111	0
58	MG	23SB	3299	1/1	0.83	0.16	68,68,68,68	0
58	MG	23SB	3263	1/1	0.83	0.34	56,56,56,56	0
58	MG	5SB	212	1/1	0.83	0.13	103,103,103,103	0
60	K	16SB	2365	1/1	0.83	0.10	126,126,126,126	0
58	MG	16SA	2222	1/1	0.83	0.33	74,74,74,74	0
58	MG	L15B	201	1/1	0.83	0.15	58,58,58,58	0
59	OHX	16SA	2300	7/7	0.83	0.12	104,105,114,228	0
58	MG	16SB	2301	1/1	0.83	0.28	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	16SA	2325	7/7	0.83	0.10	137,144,157,243	0
58	MG	23SB	3307	1/1	0.83	0.19	71,71,71,71	0
59	OHX	23SA	3304	7/7	0.83	0.10	109,115,118,229	0
60	K	16SA	2419	1/1	0.83	0.13	95,95,95,95	0
58	MG	23SB	3272	1/1	0.83	0.26	57,57,57,57	0
58	MG	23SA	3124	1/1	0.83	0.15	72,72,72,72	0
58	MG	23SB	3280	1/1	0.83	0.17	59,59,59,59	0
58	MG	L33A	101	1/1	0.83	0.27	95,95,95,95	0
59	OHX	23SA	3363	7/7	0.83	0.10	109,126,158,239	0
59	OHX	23SA	3369	7/7	0.83	0.10	125,136,152,237	0
59	OHX	23SA	3381	7/7	0.83	0.24	74,88,105,228	0
60	K	23SB	3494	1/1	0.83	0.12	109,109,109,109	0
58	MG	23SA	3017	1/1	0.83	0.15	73,73,73,73	0
59	OHX	L28A	101	7/7	0.83	0.10	84,89,95,234	0
59	OHX	16SB	2257	7/7	0.83	0.10	149,153,169,230	0
58	MG	23SA	3161	1/1	0.83	0.07	88,88,88,88	0
58	MG	23SA	3106	1/1	0.83	0.24	60,60,60,60	0
58	MG	23SA	3108	1/1	0.83	0.23	46,46,46,46	0
60	K	23SB	3520	1/1	0.83	0.10	107,107,107,107	0
60	K	23SA	3586	1/1	0.83	0.09	73,73,73,73	0
60	K	23SA	3588	1/1	0.83	0.27	70,70,70,70	0
59	OHX	23SB	3185	7/7	0.83	0.10	130,138,151,236	0
58	MG	23SA	3445	1/1	0.84	0.12	43,43,43,43	0
58	MG	16SB	2307	1/1	0.84	0.41	61,61,61,61	0
60	K	16SB	2367	1/1	0.84	0.11	115,115,115,115	0
58	MG	16SA	2247	1/1	0.84	0.25	66,66,66,66	0
60	K	16SB	2387	1/1	0.84	0.17	93,93,93,93	0
58	MG	23SA	3537	1/1	0.84	0.15	72,72,72,72	0
58	MG	23SA	3147	1/1	0.84	0.12	76,76,76,76	0
58	MG	16SB	2344	1/1	0.84	0.09	107,107,107,107	0
58	MG	23SB	3265	1/1	0.84	0.24	57,57,57,57	0
59	OHX	23SB	3140	7/7	0.84	0.10	108,117,123,240	0
58	MG	L5B	201	1/1	0.84	0.08	122,122,122,122	0
58	MG	16SB	2291	1/1	0.84	0.20	73,73,73,73	0
59	OHX	23SB	3180	7/7	0.84	0.11	104,121,149,231	0
58	MG	16SB	2292	1/1	0.84	0.35	59,59,59,59	0
59	OHX	23SB	3186	7/7	0.84	0.11	122,128,152,228	0
58	MG	5SA	202	1/1	0.84	0.07	67,67,67,67	0
58	MG	16SB	2321	1/1	0.84	0.28	73,73,73,73	0
58	MG	23SA	3128	1/1	0.84	0.17	62,62,62,62	0
60	K	16SA	2377	1/1	0.84	0.09	101,101,101,101	0
60	K	23SA	3584	1/1	0.84	0.07	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	K	23SB	3498	1/1	0.84	0.07	108,108,108,108	0
60	K	16SA	2380	1/1	0.84	0.14	91,91,91,91	0
60	K	23SB	3502	1/1	0.84	0.10	97,97,97,97	0
59	OHX	23SA	3257	7/7	0.84	0.11	134,139,144,224	0
58	MG	23SB	3210	1/1	0.84	0.28	60,60,60,60	0
58	MG	23SA	3116	1/1	0.84	0.20	62,62,62,62	0
59	OHX	23SA	3346	7/7	0.84	0.10	143,147,162,241	0
60	K	23SB	3517	1/1	0.84	0.24	103,103,103,103	0
58	MG	23SB	3218	1/1	0.84	0.21	56,56,56,56	0
60	K	23SA	3625	1/1	0.84	0.08	83,83,83,83	0
58	MG	23SB	3230	1/1	0.84	0.24	66,66,66,66	0
59	OHX	23SA	3354	7/7	0.84	0.13	110,114,141,218	0
58	MG	23SA	3002	1/1	0.84	0.25	58,58,58,58	0
60	K	L3A	303	1/1	0.85	0.10	88,88,88,88	0
60	K	16SA	2398	1/1	0.85	0.12	67,67,67,67	0
58	MG	23SB	3234	1/1	0.85	0.24	55,55,55,55	0
58	MG	23SA	3092	1/1	0.85	0.07	60,60,60,60	0
58	MG	23SA	3006	1/1	0.85	0.24	50,50,50,50	0
59	OHX	23SA	3374	7/7	0.85	0.11	123,128,153,223	0
59	OHX	23SA	3380	7/7	0.85	0.10	101,108,113,232	0
58	MG	23SA	3118	1/1	0.85	0.14	59,59,59,59	0
58	MG	16SB	2330	1/1	0.85	0.15	93,93,93,93	0
59	OHX	5SA	213	7/7	0.85	0.10	118,123,145,229	0
58	MG	23SA	3156	1/1	0.85	0.10	69,69,69,69	0
58	MG	16SB	2279	1/1	0.85	0.20	68,68,68,68	0
60	K	S13B	201	1/1	0.85	0.08	139,139,139,139	0
58	MG	L4B	302	1/1	0.85	0.27	94,94,94,94	0
59	OHX	16SB	2272	7/7	0.85	0.10	140,141,165,247	0
58	MG	16SB	2312	1/1	0.85	0.13	71,71,71,71	0
60	K	23SB	3448	1/1	0.85	0.17	104,104,104,104	0
59	OHX	23SB	3161	7/7	0.85	0.09	142,150,169,244	0
58	MG	23SB	3304	1/1	0.85	0.21	68,68,68,68	0
60	K	23SB	3478	1/1	0.85	0.13	94,94,94,94	0
59	OHX	23SB	3165	7/7	0.85	0.09	146,151,160,234	0
59	OHX	23SB	3172	7/7	0.85	0.10	120,133,146,238	0
58	MG	23SA	3063	1/1	0.85	0.18	66,66,66,66	0
59	OHX	23SB	3179	7/7	0.85	0.11	154,162,169,245	0
58	MG	23SA	3008	1/1	0.85	0.09	73,73,73,73	0
58	MG	23SA	3036	1/1	0.85	0.18	53,53,53,53	0
59	OHX	16SA	2328	7/7	0.85	0.11	143,155,166,234	0
58	MG	23SA	3069	1/1	0.85	0.19	70,70,70,70	0
59	OHX	TRNA	102	7/7	0.85	0.09	125,127,144,247	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	23SB	3199	7/7	0.85	0.10	100,103,106,239	0
58	MG	23SB	3207	1/1	0.85	0.18	47,47,47,47	0
58	MG	23SA	3422	1/1	0.85	0.13	63,63,63,63	0
58	MG	23SB	3316	1/1	0.85	0.15	62,62,62,62	0
58	MG	16SA	2229	1/1	0.85	0.22	71,71,71,71	0
58	MG	16SA	2248	1/1	0.85	0.26	83,83,83,83	0
58	MG	23SA	3143	1/1	0.85	0.19	69,69,69,69	0
58	MG	16SA	2226	1/1	0.85	0.12	78,78,78,78	0
58	MG	5SA	203	1/1	0.86	0.25	79,79,79,79	0
58	MG	23SB	3220	1/1	0.86	0.08	72,72,72,72	0
58	MG	L23A	101	1/1	0.86	0.10	60,60,60,60	0
58	MG	23SA	3171	1/1	0.86	0.12	49,49,49,49	0
58	MG	L32A	101	1/1	0.86	0.13	67,67,67,67	0
60	K	L5A	302	1/1	0.86	0.12	83,83,83,83	0
58	MG	23SB	3240	1/1	0.86	0.22	54,54,54,54	0
58	MG	23SA	3094	1/1	0.86	0.19	55,55,55,55	0
60	K	16SB	2366	1/1	0.86	0.10	88,88,88,88	0
60	K	16SA	2391	1/1	0.86	0.12	86,86,86,86	0
58	MG	16SB	2332	1/1	0.86	0.15	92,92,92,92	0
60	K	16SB	2375	1/1	0.86	0.08	106,106,106,106	0
60	K	16SB	2381	1/1	0.86	0.09	100,100,100,100	0
58	MG	23SA	3083	1/1	0.86	0.17	41,41,41,41	0
58	MG	16SA	2220	1/1	0.86	0.20	47,47,47,47	0
60	K	16SB	2390	1/1	0.86	0.12	96,96,96,96	0
58	MG	23SA	3051	1/1	0.86	0.30	53,53,53,53	0
58	MG	16SB	2363	1/1	0.86	0.10	89,89,89,89	0
59	OHX	16SB	2264	7/7	0.86	0.09	140,157,163,237	0
58	MG	23SA	3131	1/1	0.86	0.12	63,63,63,63	0
59	OHX	16SB	2277	7/7	0.86	0.09	99,106,111,245	0
59	OHX	23SB	3110	7/7	0.86	0.09	104,110,117,225	0
59	OHX	23SB	3119	7/7	0.86	0.10	86,94,113,210	0
59	OHX	23SB	3126	7/7	0.86	0.10	110,115,124,217	0
59	OHX	23SB	3135	7/7	0.86	0.11	81,95,103,232	0
58	MG	23SA	3499	1/1	0.86	0.14	56,56,56,56	0
59	OHX	23SB	3148	7/7	0.86	0.10	111,126,143,215	0
59	OHX	23SB	3157	7/7	0.86	0.10	120,135,155,223	0
58	MG	16SB	2289	1/1	0.86	0.13	89,89,89,89	0
59	OHX	ASIA	102	7/7	0.86	0.11	113,120,131,219	0
58	MG	23SA	3136	1/1	0.86	0.10	77,77,77,77	0
58	MG	23SB	3273	1/1	0.86	0.37	51,51,51,51	0
60	K	23SA	3550	1/1	0.86	0.18	81,81,81,81	0
59	OHX	23SB	3174	7/7	0.86	0.10	128,128,151,234	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	16SB	2318	1/1	0.86	0.30	65,65,65,65	0
58	MG	23SB	3279	1/1	0.86	0.23	82,82,82,82	0
59	OHX	23SA	3312	7/7	0.86	0.23	74,87,95,219	0
59	OHX	23SB	3181	7/7	0.86	0.09	118,141,152,230	0
58	MG	16SA	2257	1/1	0.86	0.24	54,54,54,54	0
59	OHX	23SA	3347	7/7	0.86	0.10	126,132,144,218	0
58	MG	23SA	3080	1/1	0.86	0.18	57,57,57,57	0
58	MG	23SA	3170	1/1	0.86	0.08	69,69,69,69	0
60	K	23SA	3597	1/1	0.86	0.12	87,87,87,87	0
59	OHX	23SB	3194	7/7	0.86	0.09	133,151,170,230	0
59	OHX	23SB	3196	7/7	0.86	0.10	157,162,174,238	0
60	K	23SA	3617	1/1	0.86	0.10	74,74,74,74	0
58	MG	23SB	3372	1/1	0.87	0.10	50,50,50,50	0
58	MG	23SB	3388	1/1	0.87	0.12	38,38,38,38	0
58	MG	16SB	2302	1/1	0.87	0.35	66,66,66,66	0
60	K	16SA	2379	1/1	0.87	0.07	111,111,111,111	0
58	MG	23SA	3081	1/1	0.87	0.20	50,50,50,50	0
58	MG	16SA	2219	1/1	0.87	0.14	74,74,74,74	0
58	MG	23SA	3005	1/1	0.87	0.17	54,54,54,54	0
60	K	16SA	2385	1/1	0.87	0.17	107,107,107,107	0
58	MG	16SA	2209	1/1	0.87	0.08	86,86,86,86	0
60	K	16SA	2387	1/1	0.87	0.10	93,93,93,93	0
58	MG	16SB	2311	1/1	0.87	0.33	84,84,84,84	0
59	OHX	16SB	2246	7/7	0.87	0.10	104,108,114,227	0
60	K	16SB	2379	1/1	0.87	0.11	121,121,121,121	0
58	MG	23SA	3026	1/1	0.87	0.18	52,52,52,52	0
58	MG	23SB	3261	1/1	0.87	0.19	52,52,52,52	0
58	MG	16SB	2361	1/1	0.87	0.08	122,122,122,122	0
58	MG	23SA	3007	1/1	0.87	0.26	61,61,61,61	0
60	K	16SB	2392	1/1	0.87	0.08	117,117,117,117	0
59	OHX	16SA	2326	7/7	0.87	0.10	127,136,164,238	0
58	MG	23SA	3117	1/1	0.87	0.11	81,81,81,81	0
58	MG	16SA	2204	1/1	0.87	0.23	52,52,52,52	0
59	OHX	23SB	3122	7/7	0.87	0.11	93,97,102,223	0
58	MG	23SA	3516	1/1	0.87	0.09	84,84,84,84	0
60	K	16SA	2420	1/1	0.87	0.10	99,99,99,99	0
59	OHX	23SB	3127	7/7	0.87	0.09	109,115,122,246	0
58	MG	16SA	2259	1/1	0.87	0.22	47,47,47,47	0
58	MG	23SB	3202	1/1	0.87	0.29	51,51,51,51	0
59	OHX	23SB	3144	7/7	0.87	0.08	103,111,118,233	0
59	OHX	23SA	3258	7/7	0.87	0.09	90,100,113,211	0
59	OHX	23SB	3151	7/7	0.87	0.09	135,140,158,248	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	K	23SB	3475	1/1	0.87	0.10	90,90,90,90	0
59	OHX	23SA	3272	7/7	0.87	0.10	84,96,103,208	0
60	K	23SB	3479	1/1	0.87	0.09	76,76,76,76	0
59	OHX	23SA	3288	7/7	0.87	0.18	82,88,106,207	0
59	OHX	23SA	3295	7/7	0.87	0.08	103,109,114,228	0
59	OHX	23SA	3298	7/7	0.87	0.09	95,100,108,219	0
60	K	23SA	3553	1/1	0.87	0.13	92,92,92,92	0
58	MG	23SB	3204	1/1	0.87	0.29	54,54,54,54	0
58	MG	23SA	3045	1/1	0.87	0.27	44,44,44,44	0
58	MG	23SA	3071	1/1	0.87	0.19	77,77,77,77	0
59	OHX	23SA	3336	7/7	0.87	0.10	112,116,141,218	0
58	MG	23SA	3049	1/1	0.87	0.23	57,57,57,57	0
58	MG	23SA	3163	1/1	0.87	0.18	45,45,45,45	0
59	OHX	23SA	3349	7/7	0.87	0.09	115,126,155,229	0
58	MG	23SB	3327	1/1	0.87	0.09	59,59,59,59	0
59	OHX	23SB	3189	7/7	0.87	0.10	147,159,176,238	0
58	MG	16SB	2296	1/1	0.87	0.20	71,71,71,71	0
58	MG	23SA	3168	1/1	0.87	0.17	89,89,89,89	0
59	OHX	23SA	3361	7/7	0.87	0.10	86,117,130,220	0
58	MG	23SB	3223	1/1	0.87	0.17	79,79,79,79	0
59	OHX	16SA	2332	7/7	0.88	0.10	133,137,152,236	0
58	MG	23SA	3102	1/1	0.88	0.26	45,45,45,45	0
59	OHX	23SA	3373	7/7	0.88	0.10	92,109,134,230	0
59	OHX	16SA	2335	7/7	0.88	0.09	127,136,156,226	0
58	MG	23SA	3020	1/1	0.88	0.24	32,32,32,32	0
58	MG	23SB	3329	1/1	0.88	0.25	64,64,64,64	0
58	MG	16SA	2201	1/1	0.88	0.24	73,73,73,73	0
59	OHX	5SA	209	7/7	0.88	0.10	81,100,111,199	0
58	MG	23SA	3402	1/1	0.88	0.13	49,49,49,49	0
58	MG	23SA	3097	1/1	0.88	0.25	50,50,50,50	0
58	MG	L3A	301	1/1	0.88	0.21	57,57,57,57	0
60	K	S6B	201	1/1	0.88	0.09	85,85,85,85	0
59	OHX	16SB	2249	7/7	0.88	0.09	102,104,116,221	0
58	MG	23SA	3078	1/1	0.88	0.23	50,50,50,50	0
58	MG	23SB	3232	1/1	0.88	0.22	60,60,60,60	0
60	K	23SB	3441	1/1	0.88	0.12	88,88,88,88	0
60	K	23SA	3562	1/1	0.88	0.05	80,80,80,80	0
58	MG	23SA	3019	1/1	0.88	0.11	35,35,35,35	0
59	OHX	23SA	3307	7/7	0.88	0.09	108,113,123,223	0
59	OHX	16SB	2273	7/7	0.88	0.09	129,146,161,233	0
59	OHX	16SB	2275	7/7	0.88	0.10	115,137,163,225	0
60	K	23SB	3476	1/1	0.88	0.22	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	K	16SA	2378	1/1	0.88	0.09	93,93,93,93	0
58	MG	23SB	3236	1/1	0.88	0.28	58,58,58,58	0
59	OHX	MRNB	101	7/7	0.88	0.09	144,148,154,235	0
58	MG	23SA	3484	1/1	0.88	0.12	84,84,84,84	0
59	OHX	23SB	3114	7/7	0.88	0.08	96,100,108,207	0
58	MG	23SA	3489	1/1	0.88	0.11	36,36,36,36	0
59	OHX	23SA	3339	7/7	0.88	0.09	99,120,146,218	0
60	K	23SB	3499	1/1	0.88	0.09	85,85,85,85	0
59	OHX	23SA	3345	7/7	0.88	0.10	107,120,136,224	0
58	MG	23SA	3495	1/1	0.88	0.09	67,67,67,67	0
59	OHX	23SB	3132	7/7	0.88	0.09	105,111,127,226	0
59	OHX	16SA	2290	7/7	0.88	0.18	82,92,113,204	0
60	K	23SB	3512	1/1	0.88	0.11	79,79,79,79	0
59	OHX	16SA	2292	7/7	0.88	0.11	88,100,116,196	0
59	OHX	23SB	3143	7/7	0.88	0.09	101,107,113,221	0
58	MG	23SA	3169	1/1	0.88	0.21	82,82,82,82	0
58	MG	16SB	2282	1/1	0.88	0.35	83,83,83,83	0
59	OHX	23SB	3149	7/7	0.88	0.09	111,128,143,208	0
58	MG	23SA	3068	1/1	0.88	0.09	64,64,64,64	0
58	MG	16SB	2308	1/1	0.88	0.30	59,59,59,59	0
58	MG	23SB	3324	1/1	0.88	0.13	58,58,58,58	0
59	OHX	23SA	3311	7/7	0.89	0.09	99,101,117,228	0
58	MG	23SA	3421	1/1	0.89	0.10	63,63,63,63	0
58	MG	23SA	3079	1/1	0.89	0.11	76,76,76,76	0
58	MG	23SA	3144	1/1	0.89	0.20	52,52,52,52	0
60	K	23SA	3635	1/1	0.89	0.04	69,69,69,69	0
60	K	23SA	3636	1/1	0.89	0.08	85,85,85,85	0
59	OHX	23SA	3341	7/7	0.89	0.10	113,122,146,225	0
60	K	16SA	2382	1/1	0.89	0.10	88,88,88,88	0
59	OHX	23SB	3035	7/7	0.89	0.14	65,93,108,150	0
58	MG	23SA	3166	1/1	0.89	0.19	38,38,38,38	0
58	MG	L5A	301	1/1	0.89	0.25	67,67,67,67	0
58	MG	23SB	3255	1/1	0.89	0.29	50,50,50,50	0
59	OHX	16SA	2316	7/7	0.89	0.08	114,126,153,236	0
60	K	16SA	2389	1/1	0.89	0.13	82,82,82,82	0
59	OHX	23SA	3350	7/7	0.89	0.08	121,138,153,230	0
59	OHX	16SA	2318	7/7	0.89	0.08	113,116,137,211	0
60	K	16SA	2396	1/1	0.89	0.07	103,103,103,103	0
60	K	16SB	2382	1/1	0.89	0.10	94,94,94,94	0
60	K	16SB	2384	1/1	0.89	0.08	98,98,98,98	0
58	MG	16SA	2240	1/1	0.89	0.33	70,70,70,70	0
58	MG	16SA	2205	1/1	0.89	0.27	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	23SA	3358	7/7	0.89	0.08	129,130,145,238	0
58	MG	23SB	3323	1/1	0.89	0.27	45,45,45,45	0
58	MG	23SB	3259	1/1	0.89	0.34	35,35,35,35	0
58	MG	23SB	3260	1/1	0.89	0.35	63,63,63,63	0
59	OHX	23SA	3365	7/7	0.89	0.08	184,185,193,269	0
58	MG	23SB	3296	1/1	0.89	0.43	72,72,72,72	0
59	OHX	23SA	3370	7/7	0.89	0.11	94,101,133,213	0
59	OHX	23SB	3159	7/7	0.89	0.09	124,131,146,207	0
59	OHX	23SA	3371	7/7	0.89	0.09	130,141,155,222	0
58	MG	23SA	3121	1/1	0.89	0.18	54,54,54,54	0
58	MG	23SA	3057	1/1	0.89	0.16	44,44,44,44	0
60	K	23SA	3540	1/1	0.89	0.07	79,79,79,79	0
59	OHX	23SB	3170	7/7	0.89	0.08	132,138,158,216	0
60	K	23SB	3445	1/1	0.89	0.09	66,66,66,66	0
58	MG	23SA	3140	1/1	0.89	0.12	61,61,61,61	0
58	MG	23SB	3366	1/1	0.89	0.15	39,39,39,39	0
60	K	23SA	3546	1/1	0.89	0.23	94,94,94,94	0
60	K	23SB	3471	1/1	0.89	0.14	106,106,106,106	0
59	OHX	23SB	3176	7/7	0.89	0.09	143,147,163,222	0
58	MG	23SA	3524	1/1	0.89	0.08	113,113,113,113	0
59	OHX	23SB	3178	7/7	0.89	0.10	103,113,139,232	0
59	OHX	23SA	3274	7/7	0.89	0.08	95,102,117,215	0
60	K	23SB	3480	1/1	0.89	0.13	80,80,80,80	0
59	OHX	23SA	3286	7/7	0.89	0.24	75,84,102,179	0
60	K	23SB	3490	1/1	0.89	0.07	84,84,84,84	0
59	OHX	5SA	214	7/7	0.89	0.08	138,149,161,234	0
58	MG	23SB	3222	1/1	0.89	0.19	64,64,64,64	0
58	MG	23SA	3158	1/1	0.89	0.32	77,77,77,77	0
59	OHX	23SB	3188	7/7	0.89	0.08	134,155,164,228	0
58	MG	23SB	3224	1/1	0.89	0.18	68,68,68,68	0
60	K	23SA	3581	1/1	0.89	0.10	72,72,72,72	0
59	OHX	23SB	3190	7/7	0.89	0.09	112,126,151,218	0
59	OHX	16SB	2250	7/7	0.89	0.09	110,121,130,223	0
59	OHX	16SB	2253	7/7	0.89	0.09	122,127,146,233	0
60	K	23SA	3591	1/1	0.89	0.10	66,66,66,66	0
60	K	23SA	3592	1/1	0.89	0.09	67,67,67,67	0
58	MG	23SB	3308	1/1	0.89	0.14	73,73,73,73	0
59	OHX	23SB	3195	7/7	0.89	0.09	182,185,190,255	0
58	MG	16SA	2225	1/1	0.89	0.24	50,50,50,50	0
60	K	23SA	3599	1/1	0.89	0.07	66,66,66,66	0
58	MG	PSIB	103	1/1	0.89	0.23	52,52,52,52	0
59	OHX	5SB	210	7/7	0.89	0.09	125,130,151,226	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	K	23SA	3613	1/1	0.89	0.11	91,91,91,91	0
61	SJE	23SA	3640	87/87	0.89	0.14	44,53,86,93	0
58	MG	23SA	3115	1/1	0.90	0.21	91,91,91,91	0
58	MG	23SB	3244	1/1	0.90	0.24	43,43,43,43	0
58	MG	23SB	3245	1/1	0.90	0.22	45,45,45,45	0
58	MG	23SB	3250	1/1	0.90	0.25	41,41,41,41	0
58	MG	16SB	2306	1/1	0.90	0.19	56,56,56,56	0
59	OHX	23SB	3183	7/7	0.90	0.08	148,155,160,237	0
58	MG	23SB	3292	1/1	0.90	0.17	57,57,57,57	0
58	MG	23SA	3014	1/1	0.90	0.28	70,70,70,70	0
58	MG	23SA	3483	1/1	0.90	0.07	92,92,92,92	0
59	OHX	5SA	208	7/7	0.90	0.08	98,106,114,218	0
59	OHX	23SA	3252	7/7	0.90	0.16	83,84,115,187	0
59	OHX	23SB	3191	7/7	0.90	0.09	112,116,127,213	0
58	MG	16SA	2227	1/1	0.90	0.18	56,56,56,56	0
58	MG	23SB	3336	1/1	0.90	0.08	64,64,64,64	0
58	MG	23SB	3346	1/1	0.90	0.11	56,56,56,56	0
59	OHX	16SB	2217	7/7	0.90	0.10	95,102,111,201	0
58	MG	23SA	3075	1/1	0.90	0.31	61,61,61,61	0
59	OHX	23SB	3197	7/7	0.90	0.09	100,101,110,231	0
59	OHX	23SB	3198	7/7	0.90	0.08	107,108,121,238	0
59	OHX	23SA	3284	7/7	0.90	0.17	84,87,97,215	0
59	OHX	5SB	208	7/7	0.90	0.10	98,111,123,206	0
58	MG	23SA	3139	1/1	0.90	0.17	58,58,58,58	0
58	MG	16SB	2293	1/1	0.90	0.22	48,48,48,48	0
59	OHX	16SB	2256	7/7	0.90	0.08	125,127,138,219	0
58	MG	23SB	3219	1/1	0.90	0.17	61,61,61,61	0
60	K	16SB	2374	1/1	0.90	0.07	94,94,94,94	0
58	MG	23SB	3389	1/1	0.90	0.09	54,54,54,54	0
59	OHX	16SB	2262	7/7	0.90	0.08	158,164,176,252	0
60	K	16SA	2381	1/1	0.90	0.09	109,109,109,109	0
59	OHX	23SA	3302	7/7	0.90	0.13	83,91,106,208	0
58	MG	23SA	3172	1/1	0.90	0.30	58,58,58,58	0
60	K	16SB	2386	1/1	0.90	0.08	94,94,94,94	0
58	MG	23SA	3016	1/1	0.90	0.12	59,59,59,59	0
58	MG	23SB	3420	1/1	0.90	0.12	62,62,62,62	0
59	OHX	23SA	3310	7/7	0.90	0.07	99,106,111,224	0
59	OHX	ASIB	103	7/7	0.90	0.08	124,130,147,238	0
58	MG	23SB	3431	1/1	0.90	0.08	113,113,113,113	0
58	MG	23SB	3264	1/1	0.90	0.08	55,55,55,55	0
59	OHX	23SB	3063	7/7	0.90	0.10	90,104,112,182	0
59	OHX	23SB	3095	7/7	0.90	0.09	94,97,104,213	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	23SB	3099	7/7	0.90	0.08	87,101,111,219	0
60	K	16SA	2402	1/1	0.90	0.18	89,89,89,89	0
59	OHX	23SA	3317	7/7	0.90	0.08	107,109,120,235	0
59	OHX	23SA	3318	7/7	0.90	0.09	138,157,165,234	0
59	OHX	23SB	3117	7/7	0.90	0.22	88,92,98,197	0
59	OHX	23SB	3118	7/7	0.90	0.08	114,118,121,225	0
60	K	16SA	2411	1/1	0.90	0.25	82,82,82,82	0
58	MG	16SA	2214	1/1	0.90	0.16	76,76,76,76	0
60	K	23SB	3446	1/1	0.90	0.13	85,85,85,85	0
60	K	23SB	3447	1/1	0.90	0.08	97,97,97,97	0
58	MG	5SB	214	1/1	0.90	0.31	56,56,56,56	0
60	K	23SB	3449	1/1	0.90	0.08	63,63,63,63	0
60	K	23SB	3454	1/1	0.90	0.08	74,74,74,74	0
60	K	16SA	2417	1/1	0.90	0.09	81,81,81,81	0
58	MG	16SB	2298	1/1	0.90	0.31	72,72,72,72	0
60	K	23SB	3468	1/1	0.90	0.06	97,97,97,97	0
59	OHX	23SA	3342	7/7	0.90	0.27	87,93,102,203	0
60	K	23SB	3473	1/1	0.90	0.11	108,108,108,108	0
59	OHX	23SB	3131	7/7	0.90	0.08	114,116,124,216	0
60	K	S13A	201	1/1	0.90	0.07	108,108,108,108	0
59	OHX	23SA	3343	7/7	0.90	0.10	93,117,131,217	0
60	K	PSIA	104	1/1	0.90	0.12	80,80,80,80	0
58	MG	23SB	3227	1/1	0.90	0.09	76,76,76,76	0
58	MG	23SA	3047	1/1	0.90	0.12	52,52,52,52	0
60	K	23SB	3487	1/1	0.90	0.06	65,65,65,65	0
59	OHX	23SB	3141	7/7	0.90	0.08	98,103,118,228	0
59	OHX	16SA	2281	7/7	0.90	0.09	106,115,123,199	0
58	MG	23SB	3312	1/1	0.90	0.18	41,41,41,41	0
58	MG	16SB	2319	1/1	0.90	0.33	57,57,57,57	0
58	MG	23SA	3162	1/1	0.90	0.25	62,62,62,62	0
59	OHX	16SA	2307	7/7	0.90	0.09	106,110,119,215	0
59	OHX	16SA	2310	7/7	0.90	0.10	109,114,122,197	0
59	OHX	23SA	3355	7/7	0.90	0.08	117,125,148,217	0
60	K	23SB	3507	1/1	0.90	0.10	72,72,72,72	0
60	K	23SB	3508	1/1	0.90	0.14	76,76,76,76	0
59	OHX	16SA	2314	7/7	0.90	0.08	119,126,128,235	0
60	K	23SA	3552	1/1	0.90	0.14	83,83,83,83	0
59	OHX	23SA	3360	7/7	0.90	0.10	90,94,110,208	0
58	MG	23SA	3112	1/1	0.90	0.06	60,60,60,60	0
60	K	23SB	3514	1/1	0.90	0.23	95,95,95,95	0
60	K	23SA	3556	1/1	0.90	0.07	60,60,60,60	0
60	K	23SB	3516	1/1	0.90	0.15	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	23SB	3168	7/7	0.90	0.10	123,133,154,222	0
60	K	23SB	3518	1/1	0.90	0.11	86,86,86,86	0
58	MG	23SB	3317	1/1	0.90	0.11	78,78,78,78	0
59	OHX	23SB	3171	7/7	0.90	0.09	129,131,134,212	0
60	K	23SA	3564	1/1	0.90	0.09	72,72,72,72	0
58	MG	23SB	3200	1/1	0.90	0.25	39,39,39,39	0
59	OHX	16SA	2323	7/7	0.90	0.08	162,167,181,233	0
59	OHX	23SA	3368	7/7	0.90	0.10	115,130,133,209	0
59	OHX	23SA	3348	7/7	0.91	0.09	138,148,158,224	0
59	OHX	16SB	2263	7/7	0.91	0.08	157,159,167,234	0
58	MG	23SB	3361	1/1	0.91	0.11	51,51,51,51	0
58	MG	16SA	2203	1/1	0.91	0.34	60,60,60,60	0
58	MG	23SA	3175	1/1	0.91	0.09	52,52,52,52	0
58	MG	23SB	3205	1/1	0.91	0.24	54,54,54,54	0
58	MG	16SB	2320	1/1	0.91	0.22	62,62,62,62	0
59	OHX	23SA	3221	7/7	0.91	0.10	73,86,105,162	0
59	OHX	PSIB	102	7/7	0.91	0.08	143,157,164,248	0
59	OHX	23SA	3356	7/7	0.91	0.08	111,129,143,223	0
59	OHX	23SA	3357	7/7	0.91	0.09	156,158,169,238	0
58	MG	23SB	3398	1/1	0.91	0.13	46,46,46,46	0
59	OHX	23SB	3087	7/7	0.91	0.17	86,94,99,175	0
59	OHX	23SB	3089	7/7	0.91	0.07	106,112,116,216	0
59	OHX	23SA	3359	7/7	0.91	0.08	128,136,163,233	0
58	MG	23SA	3123	1/1	0.91	0.12	57,57,57,57	0
58	MG	23SA	3150	1/1	0.91	0.20	60,60,60,60	0
58	MG	16SA	2215	1/1	0.91	0.40	58,58,58,58	0
58	MG	23SA	3091	1/1	0.91	0.15	66,66,66,66	0
59	OHX	5SB	207	7/7	0.91	0.08	115,121,127,222	0
58	MG	16SB	2299	1/1	0.91	0.20	50,50,50,50	0
60	K	23SA	3568	1/1	0.91	0.05	58,58,58,58	0
59	OHX	23SA	3367	7/7	0.91	0.08	122,139,164,218	0
58	MG	L15A	202	1/1	0.91	0.16	59,59,59,59	0
58	MG	16SA	2231	1/1	0.91	0.20	57,57,57,57	0
58	MG	23SA	3044	1/1	0.91	0.12	65,65,65,65	0
60	K	23SA	3587	1/1	0.91	0.07	91,91,91,91	0
58	MG	23SA	3018	1/1	0.91	0.23	30,30,30,30	0
58	MG	23SB	3226	1/1	0.91	0.16	60,60,60,60	0
58	MG	23SA	3482	1/1	0.91	0.11	66,66,66,66	0
59	OHX	23SB	3136	7/7	0.91	0.09	97,102,117,216	0
59	OHX	23SB	3138	7/7	0.91	0.09	150,164,170,228	0
59	OHX	23SA	3377	7/7	0.91	0.08	145,154,161,239	0
60	K	23SB	3485	1/1	0.91	0.10	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	16SA	2286	7/7	0.91	0.24	75,88,94,169	0
58	MG	16SB	2339	1/1	0.91	0.06	124,124,124,124	0
58	MG	23SA	3111	1/1	0.91	0.17	56,56,56,56	0
58	MG	23SA	3096	1/1	0.91	0.09	70,70,70,70	0
58	MG	23SA	3033	1/1	0.91	0.18	74,74,74,74	0
59	OHX	23SB	3150	7/7	0.91	0.08	134,143,159,230	0
60	K	23SA	3631	1/1	0.91	0.10	78,78,78,78	0
60	K	23SB	3500	1/1	0.91	0.06	80,80,80,80	0
58	MG	16SB	2283	1/1	0.91	0.18	48,48,48,48	0
59	OHX	23SB	3153	7/7	0.91	0.08	123,135,155,235	0
60	K	23SB	3505	1/1	0.91	0.12	75,75,75,75	0
59	OHX	23SB	3155	7/7	0.91	0.08	136,149,154,230	0
58	MG	23SA	3084	1/1	0.91	0.05	64,64,64,64	0
59	OHX	23SA	3324	7/7	0.91	0.09	85,91,107,225	0
58	MG	23SA	3497	1/1	0.91	0.07	81,81,81,81	0
60	K	16SA	2406	1/1	0.91	0.07	87,87,87,87	0
59	OHX	16SB	2222	7/7	0.91	0.10	108,112,124,190	0
60	K	16SA	2409	1/1	0.91	0.11	81,81,81,81	0
59	OHX	16SB	2227	7/7	0.91	0.07	115,116,122,221	0
58	MG	23SB	3288	1/1	0.91	0.14	72,72,72,72	0
58	MG	23SA	3141	1/1	0.91	0.24	60,60,60,60	0
59	OHX	16SA	2319	7/7	0.91	0.07	131,143,148,232	0
58	MG	23SA	3073	1/1	0.91	0.11	42,42,42,42	0
58	MG	23SA	3087	1/1	0.91	0.19	61,61,61,61	0
60	K	16SB	2380	1/1	0.91	0.07	91,91,91,91	0
60	K	L4B	303	1/1	0.91	0.07	98,98,98,98	0
58	MG	23SA	3120	1/1	0.91	0.09	67,67,67,67	0
60	K	S6A	201	1/1	0.91	0.11	82,82,82,82	0
58	MG	23SB	3256	1/1	0.91	0.18	47,47,47,47	0
58	MG	23SB	3291	1/1	0.92	0.15	79,79,79,79	0
58	MG	23SB	3237	1/1	0.92	0.22	73,73,73,73	0
60	K	23SA	3614	1/1	0.92	0.10	65,65,65,65	0
58	MG	16SA	2244	1/1	0.92	0.29	62,62,62,62	0
59	OHX	16SB	2267	7/7	0.92	0.08	109,115,145,208	0
60	K	23SA	3626	1/1	0.92	0.06	69,69,69,69	0
58	MG	23SB	3429	1/1	0.92	0.16	93,93,93,93	0
58	MG	23SB	3294	1/1	0.92	0.08	55,55,55,55	0
59	OHX	5SB	206	7/7	0.92	0.08	120,123,129,223	0
58	MG	23SA	3384	1/1	0.92	0.11	43,43,43,43	0
59	OHX	23SA	3333	7/7	0.92	0.08	101,104,130,208	0
58	MG	23SA	3393	1/1	0.92	0.09	54,54,54,54	0
60	K	5SA	219	1/1	0.92	0.05	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	5SB	211	7/7	0.92	0.08	134,145,159,239	0
59	OHX	L20B	201	7/7	0.92	0.16	88,95,110,186	0
58	MG	16SA	2208	1/1	0.92	0.17	77,77,77,77	0
58	MG	L3B	301	1/1	0.92	0.18	40,40,40,40	0
58	MG	L3B	302	1/1	0.92	0.11	50,50,50,50	0
58	MG	23SB	3298	1/1	0.92	0.26	55,55,55,55	0
58	MG	23SB	3248	1/1	0.92	0.35	44,44,44,44	0
58	MG	23SA	3157	1/1	0.92	0.20	39,39,39,39	0
59	OHX	23SB	3093	7/7	0.92	0.08	93,100,110,208	0
58	MG	L35B	103	1/1	0.92	0.18	82,82,82,82	0
58	MG	23SB	3252	1/1	0.92	0.08	68,68,68,68	0
59	OHX	23SB	3104	7/7	0.92	0.08	111,116,130,225	0
58	MG	L27A	101	1/1	0.92	0.17	35,35,35,35	0
58	MG	23SA	3046	1/1	0.92	0.19	52,52,52,52	0
58	MG	23SA	3424	1/1	0.92	0.12	36,36,36,36	0
59	OHX	16SA	2295	7/7	0.92	0.08	97,101,119,212	0
59	OHX	16SA	2299	7/7	0.92	0.08	107,114,116,211	0
59	OHX	23SB	3120	7/7	0.92	0.07	94,104,115,226	0
60	K	16SB	2391	1/1	0.92	0.07	87,87,87,87	0
59	OHX	23SB	3121	7/7	0.92	0.08	95,102,110,221	0
58	MG	16SB	2310	1/1	0.92	0.39	75,75,75,75	0
60	K	16SB	2394	1/1	0.92	0.09	92,92,92,92	0
58	MG	16SA	2233	1/1	0.92	0.10	71,71,71,71	0
58	MG	L34A	101	1/1	0.92	0.23	50,50,50,50	0
59	OHX	23SB	3129	7/7	0.92	0.07	103,109,115,227	0
59	OHX	23SB	3130	7/7	0.92	0.08	106,117,124,209	0
59	OHX	16SA	2312	7/7	0.92	0.23	92,98,105,188	0
58	MG	23SA	3437	1/1	0.92	0.23	67,67,67,67	0
58	MG	23SB	3203	1/1	0.92	0.29	40,40,40,40	0
60	K	16SA	2412	1/1	0.92	0.14	92,92,92,92	0
58	MG	23SA	3011	1/1	0.92	0.19	42,42,42,42	0
58	MG	23SA	3461	1/1	0.92	0.11	44,44,44,44	0
59	OHX	23SB	3139	7/7	0.92	0.08	90,97,109,222	0
58	MG	23SA	3072	1/1	0.92	0.14	68,68,68,68	0
59	OHX	23SA	3364	7/7	0.92	0.08	96,103,122,203	0
59	OHX	23SB	3142	7/7	0.92	0.08	136,146,149,236	0
58	MG	16SA	2367	1/1	0.92	0.16	83,83,83,83	0
59	OHX	16SA	2324	7/7	0.92	0.08	131,145,160,226	0
58	MG	16SB	2286	1/1	0.92	0.17	77,77,77,77	0
58	MG	23SA	3164	1/1	0.92	0.29	61,61,61,61	0
58	MG	23SA	3165	1/1	0.92	0.29	62,62,62,62	0
58	MG	23SA	3031	1/1	0.92	0.12	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SA	3167	1/1	0.92	0.20	77,77,77,77	0
60	K	23SB	3474	1/1	0.92	0.09	63,63,63,63	0
60	K	23SA	3541	1/1	0.92	0.09	102,102,102,102	0
58	MG	23SB	3275	1/1	0.92	0.23	65,65,65,65	0
59	OHX	16SA	2340	7/7	0.92	0.08	102,105,115,209	0
59	OHX	23SA	3378	7/7	0.92	0.23	81,87,102,184	0
58	MG	23SA	3077	1/1	0.92	0.19	48,48,48,48	0
59	OHX	23SB	3162	7/7	0.92	0.07	129,137,145,231	0
58	MG	23SB	3277	1/1	0.92	0.12	41,41,41,41	0
59	OHX	23SB	3164	7/7	0.92	0.08	124,135,157,228	0
58	MG	23SB	3278	1/1	0.92	0.16	45,45,45,45	0
59	OHX	5SA	206	7/7	0.92	0.15	91,97,113,184	0
59	OHX	23SA	3239	7/7	0.92	0.08	95,99,109,191	0
58	MG	23SA	3500	1/1	0.92	0.12	49,49,49,49	0
60	K	23SA	3555	1/1	0.92	0.17	71,71,71,71	0
58	MG	16SA	2374	1/1	0.92	0.14	73,73,73,73	0
60	K	23SA	3557	1/1	0.92	0.07	84,84,84,84	0
60	K	23SA	3559	1/1	0.92	0.20	82,82,82,82	0
58	MG	PSIA	101	1/1	0.92	0.30	54,54,54,54	0
59	OHX	L15A	201	7/7	0.92	0.19	84,91,102,193	0
59	OHX	L27A	103	7/7	0.92	0.08	108,119,145,199	0
58	MG	23SB	3282	1/1	0.92	0.23	64,64,64,64	0
58	MG	16SA	2216	1/1	0.92	0.28	46,46,46,46	0
58	MG	23SA	3061	1/1	0.92	0.09	83,83,83,83	0
58	MG	16SB	2331	1/1	0.92	0.30	55,55,55,55	0
59	OHX	23SB	3182	7/7	0.92	0.08	190,192,204,241	0
59	OHX	16SB	2228	7/7	0.92	0.08	99,100,112,192	0
59	OHX	23SB	3184	7/7	0.92	0.08	116,132,141,221	0
59	OHX	16SB	2244	7/7	0.92	0.07	99,108,114,225	0
58	MG	23SB	3378	1/1	0.92	0.09	70,70,70,70	0
58	MG	23SB	3381	1/1	0.92	0.11	49,49,49,49	0
58	MG	23SB	3384	1/1	0.92	0.09	70,70,70,70	0
58	MG	16SA	2212	1/1	0.92	0.17	55,55,55,55	0
58	MG	23SA	3064	1/1	0.92	0.18	55,55,55,55	0
58	MG	23SB	3396	1/1	0.92	0.08	55,55,55,55	0
60	K	23SA	3603	1/1	0.92	0.09	83,83,83,83	0
60	K	23SA	3604	1/1	0.92	0.08	58,58,58,58	0
58	MG	23SB	3289	1/1	0.92	0.18	72,72,72,72	0
58	MG	23SA	3032	1/1	0.93	0.16	49,49,49,49	0
58	MG	16SB	2305	1/1	0.93	0.27	67,67,67,67	0
59	OHX	23SB	3167	7/7	0.93	0.08	121,136,143,203	0
59	OHX	S4A	301	7/7	0.93	0.09	118,122,140,210	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	16SB	2348	1/1	0.93	0.08	56,56,56,56	0
58	MG	23SB	3241	1/1	0.93	0.13	50,50,50,50	0
60	K	23SA	3593	1/1	0.93	0.05	69,69,69,69	0
58	MG	16SB	2354	1/1	0.93	0.06	102,102,102,102	0
59	OHX	23SB	3173	7/7	0.93	0.07	97,115,128,200	0
59	OHX	23SA	3224	7/7	0.93	0.17	86,94,104,168	0
58	MG	23SB	3386	1/1	0.93	0.07	91,91,91,91	0
60	K	23SA	3601	1/1	0.93	0.08	55,55,55,55	0
58	MG	23SA	3467	1/1	0.93	0.08	41,41,41,41	0
59	OHX	5SA	212	7/7	0.93	0.07	89,95,109,210	0
58	MG	23SB	3246	1/1	0.93	0.34	57,57,57,57	0
60	K	23SA	3610	1/1	0.93	0.07	62,62,62,62	0
58	MG	23SB	3391	1/1	0.93	0.07	71,71,71,71	0
59	OHX	23SA	3261	7/7	0.93	0.18	78,81,93,181	0
59	OHX	23SA	3262	7/7	0.93	0.17	81,85,101,178	0
59	OHX	23SA	3266	7/7	0.93	0.23	81,85,97,177	0
60	K	23SA	3618	1/1	0.93	0.05	62,62,62,62	0
60	K	23SA	3620	1/1	0.93	0.08	70,70,70,70	0
60	K	23SA	3623	1/1	0.93	0.06	80,80,80,80	0
59	OHX	23SA	3270	7/7	0.93	0.08	109,117,127,194	0
58	MG	23SB	3393	1/1	0.93	0.08	70,70,70,70	0
60	K	23SA	3627	1/1	0.93	0.06	67,67,67,67	0
58	MG	23SA	3472	1/1	0.93	0.13	39,39,39,39	0
58	MG	23SA	3149	1/1	0.93	0.25	66,66,66,66	0
59	OHX	16SB	2234	7/7	0.93	0.07	117,118,120,196	0
59	OHX	16SB	2242	7/7	0.93	0.09	140,145,168,211	0
59	OHX	23SA	3285	7/7	0.93	0.07	90,99,105,205	0
58	MG	23SB	3251	1/1	0.93	0.29	54,54,54,54	0
60	K	23SA	3639	1/1	0.93	0.07	80,80,80,80	0
58	MG	L35A	101	1/1	0.93	0.15	51,51,51,51	0
59	OHX	23SA	3293	7/7	0.93	0.20	70,76,97,195	0
59	OHX	16SB	2252	7/7	0.93	0.08	109,120,138,208	0
58	MG	23SA	3114	1/1	0.93	0.09	55,55,55,55	0
58	MG	23SB	3428	1/1	0.93	0.08	84,84,84,84	0
59	OHX	23SA	3301	7/7	0.93	0.07	121,123,127,230	0
59	OHX	16SB	2259	7/7	0.93	0.07	145,150,156,224	0
59	OHX	5SB	205	7/7	0.93	0.07	120,123,130,211	0
58	MG	16SA	2253	1/1	0.93	0.28	50,50,50,50	0
58	MG	23SA	3487	1/1	0.93	0.11	40,40,40,40	0
59	OHX	23SA	3306	7/7	0.93	0.07	100,113,126,199	0
59	OHX	5SB	209	7/7	0.93	0.08	121,127,134,216	0
58	MG	23SB	3437	1/1	0.93	0.29	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	16SA	2256	1/1	0.93	0.14	72,72,72,72	0
59	OHX	16SB	2268	7/7	0.93	0.07	123,133,154,220	0
60	K	16SA	2375	1/1	0.93	0.07	101,101,101,101	0
59	OHX	16SB	2271	7/7	0.93	0.07	156,167,170,247	0
59	OHX	23SA	3309	7/7	0.93	0.14	85,88,102,183	0
58	MG	23SA	3173	1/1	0.93	0.07	59,59,59,59	0
58	MG	16SB	2285	1/1	0.93	0.13	65,65,65,65	0
59	OHX	16SB	2276	7/7	0.93	0.07	131,137,146,224	0
58	MG	23SB	3306	1/1	0.93	0.16	65,65,65,65	0
59	OHX	23SA	3314	7/7	0.93	0.07	95,99,111,204	0
58	MG	16SA	2363	1/1	0.93	0.07	72,72,72,72	0
58	MG	23SA	3138	1/1	0.93	0.09	46,46,46,46	0
59	OHX	23SA	3319	7/7	0.93	0.19	82,85,93,207	0
59	OHX	23SB	3051	7/7	0.93	0.15	94,102,104,171	0
59	OHX	23SB	3052	7/7	0.93	0.21	91,95,101,175	0
59	OHX	23SA	3320	7/7	0.93	0.07	94,95,109,191	0
59	OHX	23SB	3067	7/7	0.93	0.09	79,95,108,174	0
59	OHX	23SA	3323	7/7	0.93	0.12	84,89,105,197	0
60	K	23SB	3440	1/1	0.93	0.07	94,94,94,94	0
58	MG	23SB	3206	1/1	0.93	0.24	34,34,34,34	0
59	OHX	23SA	3331	7/7	0.93	0.07	91,98,108,201	0
58	MG	23SA	3054	1/1	0.93	0.24	51,51,51,51	0
59	OHX	23SA	3334	7/7	0.93	0.07	99,115,137,214	0
58	MG	23SA	3505	1/1	0.93	0.11	40,40,40,40	0
59	OHX	23SA	3337	7/7	0.93	0.07	109,123,134,204	0
59	OHX	23SB	3111	7/7	0.93	0.08	103,108,114,205	0
59	OHX	23SB	3112	7/7	0.93	0.07	104,112,119,206	0
59	OHX	23SB	3113	7/7	0.93	0.07	112,115,125,216	0
60	K	23SB	3465	1/1	0.93	0.13	75,75,75,75	0
59	OHX	23SA	3338	7/7	0.93	0.07	138,150,158,232	0
58	MG	23SA	3003	1/1	0.93	0.15	60,60,60,60	0
60	K	23SB	3470	1/1	0.93	0.14	78,78,78,78	0
60	K	16SA	2414	1/1	0.93	0.07	100,100,100,100	0
59	OHX	23SA	3340	7/7	0.93	0.08	133,146,163,217	0
58	MG	23SA	3160	1/1	0.93	0.15	55,55,55,55	0
58	MG	23SB	3266	1/1	0.93	0.17	38,38,38,38	0
58	MG	23SB	3213	1/1	0.93	0.16	40,40,40,40	0
59	OHX	23SA	3344	7/7	0.93	0.07	95,121,141,216	0
59	OHX	23SB	3124	7/7	0.93	0.08	83,94,106,213	0
58	MG	23SB	3214	1/1	0.93	0.20	48,48,48,48	0
59	OHX	16SA	2296	7/7	0.93	0.08	87,99,108,193	0
58	MG	23SB	3269	1/1	0.93	0.26	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
60	K	23SB	3486	1/1	0.93	0.09	73,73,73,73	0
58	MG	23SB	3270	1/1	0.93	0.22	43,43,43,43	0
60	K	23SB	3488	1/1	0.93	0.08	85,85,85,85	0
60	K	23SB	3489	1/1	0.93	0.05	65,65,65,65	0
59	OHX	16SA	2304	7/7	0.93	0.20	88,96,98,193	0
59	OHX	16SA	2306	7/7	0.93	0.08	109,111,118,204	0
58	MG	23SA	3040	1/1	0.93	0.21	55,55,55,55	0
59	OHX	16SA	2309	7/7	0.93	0.08	132,139,149,214	0
58	MG	23SA	3411	1/1	0.93	0.11	43,43,43,43	0
60	K	23SA	3543	1/1	0.93	0.10	86,86,86,86	0
58	MG	23SA	3122	1/1	0.93	0.10	57,57,57,57	0
58	MG	23SA	3082	1/1	0.93	0.16	50,50,50,50	0
58	MG	23SB	3325	1/1	0.93	0.16	47,47,47,47	0
60	K	23SB	3504	1/1	0.93	0.09	87,87,87,87	0
58	MG	23SA	3027	1/1	0.93	0.14	45,45,45,45	0
58	MG	16SB	2297	1/1	0.93	0.30	64,64,64,64	0
58	MG	23SA	3145	1/1	0.93	0.07	70,70,70,70	0
59	OHX	23SB	3145	7/7	0.93	0.08	106,124,142,220	0
59	OHX	16SA	2321	7/7	0.93	0.07	157,159,162,233	0
59	OHX	16SA	2322	7/7	0.93	0.07	118,126,134,205	0
58	MG	23SA	3146	1/1	0.93	0.23	48,48,48,48	0
58	MG	23SB	3333	1/1	0.93	0.10	42,42,42,42	0
59	OHX	23SB	3152	7/7	0.93	0.08	103,105,129,194	0
58	MG	23SA	3443	1/1	0.93	0.16	32,32,32,32	0
58	MG	16SA	2228	1/1	0.93	0.29	64,64,64,64	0
59	OHX	23SB	3156	7/7	0.93	0.06	125,130,147,212	0
59	OHX	16SA	2327	7/7	0.93	0.07	134,143,149,217	0
59	OHX	23SB	3158	7/7	0.93	0.08	105,107,121,203	0
58	MG	16SB	2336	1/1	0.93	0.08	105,105,105,105	0
59	OHX	16SA	2331	7/7	0.93	0.07	155,162,169,236	0
58	MG	23SA	3452	1/1	0.93	0.11	40,40,40,40	0
60	K	23SA	3578	1/1	0.93	0.05	54,54,54,54	0
58	MG	23SB	3364	1/1	0.93	0.09	65,65,65,65	0
61	SJE	23SB	3521	87/87	0.93	0.14	48,59,87,95	0
59	OHX	23SA	3259	7/7	0.94	0.07	90,96,110,189	0
59	OHX	23SA	3260	7/7	0.94	0.19	71,90,98,175	0
60	K	23SA	3589	1/1	0.94	0.09	85,85,85,85	0
58	MG	23SA	3465	1/1	0.94	0.09	53,53,53,53	0
58	MG	23SB	3434	1/1	0.94	0.06	96,96,96,96	0
58	MG	23SB	3436	1/1	0.94	0.10	94,94,94,94	0
59	OHX	23SB	3166	7/7	0.94	0.08	91,100,114,205	0
59	OHX	23SA	3267	7/7	0.94	0.18	91,99,103,186	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	23SA	3269	7/7	0.94	0.22	86,89,103,177	0
58	MG	23SB	3313	1/1	0.94	0.05	48,48,48,48	0
58	MG	23SB	3439	1/1	0.94	0.08	87,87,87,87	0
58	MG	16SB	2341	1/1	0.94	0.07	130,130,130,130	0
59	OHX	23SA	3275	7/7	0.94	0.07	100,110,119,213	0
60	K	23SA	3606	1/1	0.94	0.05	57,57,57,57	0
59	OHX	23SA	3277	7/7	0.94	0.19	76,84,101,204	0
60	K	23SA	3609	1/1	0.94	0.06	71,71,71,71	0
59	OHX	23SB	3175	7/7	0.94	0.07	138,142,159,216	0
59	OHX	23SA	3278	7/7	0.94	0.07	85,98,101,210	0
60	K	23SA	3612	1/1	0.94	0.04	73,73,73,73	0
58	MG	16SA	2210	1/1	0.94	0.15	46,46,46,46	0
59	OHX	16SB	2233	7/7	0.94	0.07	93,102,105,189	0
58	MG	23SB	3231	1/1	0.94	0.12	51,51,51,51	0
59	OHX	16SB	2236	7/7	0.94	0.07	104,107,118,194	0
60	K	23SA	3619	1/1	0.94	0.04	81,81,81,81	0
59	OHX	16SB	2238	7/7	0.94	0.06	124,131,141,228	0
60	K	23SA	3622	1/1	0.94	0.07	61,61,61,61	0
59	OHX	16SB	2239	7/7	0.94	0.07	116,122,133,205	0
58	MG	23SA	3009	1/1	0.94	0.22	40,40,40,40	0
58	MG	23SA	3477	1/1	0.94	0.12	90,90,90,90	0
59	OHX	23SA	3292	7/7	0.94	0.11	68,81,98,170	0
60	K	23SA	3628	1/1	0.94	0.15	83,83,83,83	0
59	OHX	16SB	2247	7/7	0.94	0.08	100,103,110,200	0
59	OHX	23SB	3187	7/7	0.94	0.06	134,143,152,229	0
58	MG	23SA	3478	1/1	0.94	0.08	50,50,50,50	0
58	MG	23SA	3010	1/1	0.94	0.17	39,39,39,39	0
58	MG	23SA	3043	1/1	0.94	0.18	57,57,57,57	0
59	OHX	23SA	3299	7/7	0.94	0.11	69,80,102,183	0
59	OHX	23SA	3300	7/7	0.94	0.06	99,105,112,220	0
58	MG	16SA	2353	1/1	0.94	0.05	138,138,138,138	0
59	OHX	16SA	2271	7/7	0.94	0.10	80,94,97,147	0
59	OHX	16SA	2274	7/7	0.94	0.14	93,97,105,164	0
59	OHX	16SA	2279	7/7	0.94	0.08	118,121,129,197	0
58	MG	23SA	3024	1/1	0.94	0.14	45,45,45,45	0
58	MG	23SB	3243	1/1	0.94	0.23	30,30,30,30	0
59	OHX	16SB	2266	7/7	0.94	0.07	135,142,152,217	0
59	OHX	5SB	204	7/7	0.94	0.07	98,106,120,191	0
59	OHX	16SA	2288	7/7	0.94	0.07	90,100,106,201	0
58	MG	23SA	3012	1/1	0.94	0.06	91,91,91,91	0
60	K	16SB	2376	1/1	0.94	0.05	75,75,75,75	0
60	K	16SB	2377	1/1	0.94	0.06	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	16SB	2270	7/7	0.94	0.08	116,127,150,209	0
58	MG	23SA	3151	1/1	0.94	0.12	59,59,59,59	0
59	OHX	16SA	2293	7/7	0.94	0.09	92,98,111,198	0
58	MG	23SA	3085	1/1	0.94	0.15	52,52,52,52	0
59	OHX	16SB	2274	7/7	0.94	0.07	131,136,142,211	0
59	OHX	23SA	3315	7/7	0.94	0.07	98,100,118,232	0
58	MG	23SB	3330	1/1	0.94	0.26	54,54,54,54	0
59	OHX	16SA	2297	7/7	0.94	0.07	114,122,131,209	0
59	OHX	16SB	2278	7/7	0.94	0.07	112,116,120,223	0
59	OHX	16SA	2298	7/7	0.94	0.19	80,87,106,181	0
58	MG	23SA	3107	1/1	0.94	0.18	37,37,37,37	0
58	MG	23SB	3287	1/1	0.94	0.15	61,61,61,61	0
59	OHX	16SA	2301	7/7	0.94	0.07	107,112,121,213	0
59	OHX	23SA	3325	7/7	0.94	0.06	89,95,103,220	0
59	OHX	23SA	3327	7/7	0.94	0.07	88,96,114,211	0
59	OHX	23SB	3054	7/7	0.94	0.18	89,95,100,168	0
59	OHX	23SB	3058	7/7	0.94	0.15	80,87,94,165	0
59	OHX	23SB	3059	7/7	0.94	0.12	91,101,107,175	0
58	MG	23SB	3335	1/1	0.94	0.08	51,51,51,51	0
60	K	16SA	2388	1/1	0.94	0.26	79,79,79,79	0
59	OHX	16SA	2305	7/7	0.94	0.07	133,141,150,228	0
59	OHX	23SB	3074	7/7	0.94	0.21	82,94,96,173	0
59	OHX	23SB	3079	7/7	0.94	0.12	94,98,106,173	0
59	OHX	23SB	3081	7/7	0.94	0.07	100,106,119,201	0
60	K	23SB	3443	1/1	0.94	0.14	110,110,110,110	0
58	MG	23SB	3249	1/1	0.94	0.14	56,56,56,56	0
60	K	16SA	2401	1/1	0.94	0.08	63,63,63,63	0
58	MG	16SA	2359	1/1	0.94	0.11	62,62,62,62	0
58	MG	23SB	3349	1/1	0.94	0.08	71,71,71,71	0
58	MG	23SB	3356	1/1	0.94	0.08	39,39,39,39	0
60	K	23SB	3450	1/1	0.94	0.07	72,72,72,72	0
60	K	23SB	3451	1/1	0.94	0.06	67,67,67,67	0
58	MG	23SA	3132	1/1	0.94	0.05	57,57,57,57	0
59	OHX	23SB	3103	7/7	0.94	0.18	67,90,98,176	0
60	K	16SA	2407	1/1	0.94	0.05	75,75,75,75	0
59	OHX	16SA	2313	7/7	0.94	0.07	110,116,122,207	0
59	OHX	23SB	3105	7/7	0.94	0.17	88,96,107,174	0
59	OHX	23SB	3107	7/7	0.94	0.07	102,114,119,205	0
58	MG	23SA	3513	1/1	0.94	0.08	84,84,84,84	0
60	K	23SB	3472	1/1	0.94	0.17	77,77,77,77	0
58	MG	23SA	3133	1/1	0.94	0.11	48,48,48,48	0
58	MG	23SB	3254	1/1	0.94	0.27	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	16SA	2317	7/7	0.94	0.09	112,120,138,202	0
58	MG	23SB	3369	1/1	0.94	0.07	46,46,46,46	0
58	MG	23SA	3420	1/1	0.94	0.09	57,57,57,57	0
58	MG	23SB	3373	1/1	0.94	0.08	48,48,48,48	0
58	MG	23SA	3134	1/1	0.94	0.11	74,74,74,74	0
58	MG	16SA	2360	1/1	0.94	0.10	72,72,72,72	0
58	MG	23SB	3383	1/1	0.94	0.07	77,77,77,77	0
59	OHX	23SA	3351	7/7	0.94	0.07	116,125,140,218	0
58	MG	23SA	3050	1/1	0.94	0.17	58,58,58,58	0
58	MG	23SB	3385	1/1	0.94	0.07	82,82,82,82	0
58	MG	16SA	2251	1/1	0.94	0.28	60,60,60,60	0
58	MG	23SA	3053	1/1	0.94	0.18	33,33,33,33	0
59	OHX	16SA	2330	7/7	0.94	0.07	153,156,163,230	0
58	MG	5SA	216	1/1	0.94	0.08	67,67,67,67	0
58	MG	23SB	3390	1/1	0.94	0.10	44,44,44,44	0
58	MG	23SB	3302	1/1	0.94	0.17	49,49,49,49	0
58	MG	23SB	3215	1/1	0.94	0.19	37,37,37,37	0
58	MG	23SB	3216	1/1	0.94	0.11	42,42,42,42	0
59	OHX	16SA	2341	7/7	0.94	0.07	135,136,149,239	0
58	MG	16SA	2217	1/1	0.94	0.14	40,40,40,40	0
59	OHX	S10A	201	7/7	0.94	0.08	106,108,115,206	0
58	MG	23SA	3093	1/1	0.94	0.06	77,77,77,77	0
59	OHX	23SA	3366	7/7	0.94	0.07	99,105,125,207	0
58	MG	23SB	3407	1/1	0.94	0.10	51,51,51,51	0
59	OHX	23SA	3195	7/7	0.94	0.11	71,86,93,123	0
59	OHX	23SB	3146	7/7	0.94	0.07	98,108,114,209	0
59	OHX	23SA	3212	7/7	0.94	0.11	51,57,86,140	0
58	MG	23SB	3417	1/1	0.94	0.06	84,84,84,84	0
60	K	23SA	3558	1/1	0.94	0.10	55,55,55,55	0
58	MG	16SB	2300	1/1	0.94	0.31	48,48,48,48	0
59	OHX	23SA	3372	7/7	0.94	0.08	103,116,140,217	0
58	MG	16SA	2368	1/1	0.94	0.06	91,91,91,91	0
58	MG	23SA	3056	1/1	0.94	0.14	48,48,48,48	0
59	OHX	23SB	3154	7/7	0.94	0.09	165,172,176,225	0
59	OHX	23SA	3376	7/7	0.94	0.08	121,128,151,229	0
59	OHX	23SA	3255	7/7	0.94	0.08	131,151,160,208	0
59	OHX	23SA	3256	7/7	0.94	0.21	72,85,91,147	0
60	K	23SA	3580	1/1	0.94	0.11	39,39,39,39	0
58	MG	16SB	2303	1/1	0.94	0.17	61,61,61,61	0
58	MG	23SB	3430	1/1	0.94	0.09	70,70,70,70	0
59	OHX	23SB	3160	7/7	0.94	0.07	120,142,146,214	0
59	OHX	16SA	2276	7/7	0.95	0.12	93,96,108,169	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SA	3504	1/1	0.95	0.06	67,67,67,67	0
59	OHX	16SA	2280	7/7	0.95	0.07	100,102,112,186	0
59	OHX	23SA	3226	7/7	0.95	0.18	71,76,95,148	0
59	OHX	23SA	3227	7/7	0.95	0.17	77,84,88,170	0
59	OHX	S4B	301	7/7	0.95	0.08	116,119,128,186	0
59	OHX	ASIB	102	7/7	0.95	0.07	152,174,187,224	0
59	OHX	23SA	3231	7/7	0.95	0.16	79,87,94,150	0
59	OHX	23SA	3233	7/7	0.95	0.11	83,89,99,153	0
59	OHX	23SA	3236	7/7	0.95	0.18	76,86,90,178	0
59	OHX	23SB	3032	7/7	0.95	0.11	86,101,105,158	0
58	MG	PSIA	103	1/1	0.95	0.08	83,83,83,83	0
59	OHX	23SB	3036	7/7	0.95	0.08	113,117,131,172	0
59	OHX	23SB	3041	7/7	0.95	0.14	82,86,98,151	0
59	OHX	23SB	3050	7/7	0.95	0.17	74,79,98,166	0
59	OHX	5SB	203	7/7	0.95	0.07	102,107,119,182	0
59	OHX	23SA	3241	7/7	0.95	0.15	65,85,97,158	0
60	K	23SA	3629	1/1	0.95	0.06	65,65,65,65	0
59	OHX	23SA	3247	7/7	0.95	0.18	85,87,97,160	0
59	OHX	16SA	2283	7/7	0.95	0.06	101,107,114,179	0
60	K	23SA	3633	1/1	0.95	0.15	77,77,77,77	0
59	OHX	23SA	3254	7/7	0.95	0.14	74,86,94,175	0
59	OHX	16SA	2284	7/7	0.95	0.07	132,148,162,222	0
59	OHX	23SB	3061	7/7	0.95	0.07	100,105,115,190	0
59	OHX	23SB	3062	7/7	0.95	0.06	100,103,111,185	0
58	MG	23SA	3511	1/1	0.95	0.05	36,36,36,36	0
59	OHX	23SB	3066	7/7	0.95	0.08	94,102,114,188	0
59	OHX	L35B	101	7/7	0.95	0.09	120,126,131,191	0
60	K	L4A	304	1/1	0.95	0.07	77,77,77,77	0
58	MG	23SB	3370	1/1	0.95	0.09	49,49,49,49	0
59	OHX	23SB	3073	7/7	0.95	0.07	89,100,113,186	0
59	OHX	16SA	2289	7/7	0.95	0.11	89,94,104,178	0
59	OHX	23SB	3075	7/7	0.95	0.13	84,93,98,173	0
59	OHX	23SB	3076	7/7	0.95	0.06	109,111,118,213	0
60	K	16SB	2368	1/1	0.95	0.04	103,103,103,103	0
60	K	16SB	2369	1/1	0.95	0.15	82,82,82,82	0
58	MG	23SA	3512	1/1	0.95	0.13	45,45,45,45	0
58	MG	23SA	3434	1/1	0.95	0.12	102,102,102,102	0
58	MG	23SB	3377	1/1	0.95	0.08	47,47,47,47	0
59	OHX	23SB	3088	7/7	0.95	0.08	110,117,123,193	0
59	OHX	16SA	2294	7/7	0.95	0.07	89,94,99,207	0
59	OHX	23SB	3092	7/7	0.95	0.16	78,84,94,180	0
58	MG	23SA	3515	1/1	0.95	0.06	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SA	3001	1/1	0.95	0.30	34,34,34,34	0
59	OHX	23SA	3268	7/7	0.95	0.18	80,89,92,148	0
59	OHX	23SB	3102	7/7	0.95	0.06	108,115,119,215	0
58	MG	23SA	3519	1/1	0.95	0.08	94,94,94,94	0
58	MG	23SA	3523	1/1	0.95	0.09	70,70,70,70	0
58	MG	23SA	3155	1/1	0.95	0.18	55,55,55,55	0
60	K	16SB	2389	1/1	0.95	0.04	82,82,82,82	0
59	OHX	23SB	3106	7/7	0.95	0.08	100,119,134,193	0
59	OHX	23SA	3273	7/7	0.95	0.16	85,96,99,180	0
58	MG	23SA	3528	1/1	0.95	0.07	42,42,42,42	0
58	MG	23SA	3529	1/1	0.95	0.09	42,42,42,42	0
59	OHX	16SA	2303	7/7	0.95	0.06	117,118,127,222	0
59	OHX	23SA	3375	7/7	0.95	0.06	102,110,125,192	0
58	MG	16SB	2329	1/1	0.95	0.11	63,63,63,63	0
59	OHX	23SB	3116	7/7	0.95	0.07	126,131,140,206	0
59	OHX	23SA	3280	7/7	0.95	0.06	90,100,112,211	0
58	MG	23SA	3531	1/1	0.95	0.11	69,69,69,69	0
59	OHX	23SA	3379	7/7	0.95	0.06	102,114,136,186	0
58	MG	23SA	3022	1/1	0.95	0.22	40,40,40,40	0
60	K	16SA	2413	1/1	0.95	0.07	84,84,84,84	0
58	MG	23SA	3535	1/1	0.95	0.14	59,59,59,59	0
59	OHX	16SA	2308	7/7	0.95	0.06	110,118,129,200	0
59	OHX	23SB	3123	7/7	0.95	0.06	105,108,120,206	0
59	OHX	23SA	3291	7/7	0.95	0.07	126,133,145,190	0
60	K	23SB	3444	1/1	0.95	0.07	84,84,84,84	0
58	MG	16SA	2355	1/1	0.95	0.09	51,51,51,51	0
58	MG	23SA	3174	1/1	0.95	0.11	53,53,53,53	0
59	OHX	16SA	2311	7/7	0.95	0.07	102,108,117,196	0
58	MG	23SB	3271	1/1	0.95	0.21	46,46,46,46	0
58	MG	23SB	3228	1/1	0.95	0.28	43,43,43,43	0
58	MG	23SB	3408	1/1	0.95	0.14	51,51,51,51	0
59	OHX	L20A	201	7/7	0.95	0.10	80,91,102,185	0
60	K	23SB	3452	1/1	0.95	0.08	84,84,84,84	0
59	OHX	L27A	102	7/7	0.95	0.18	86,89,102,190	0
60	K	23SB	3458	1/1	0.95	0.07	72,72,72,72	0
60	K	23SB	3461	1/1	0.95	0.06	67,67,67,67	0
58	MG	23SA	3125	1/1	0.95	0.14	62,62,62,62	0
60	K	23SB	3463	1/1	0.95	0.05	83,83,83,83	0
60	K	23SB	3464	1/1	0.95	0.07	53,53,53,53	0
58	MG	23SA	3126	1/1	0.95	0.09	62,62,62,62	0
60	K	23SB	3466	1/1	0.95	0.07	68,68,68,68	0
59	OHX	L35A	102	7/7	0.95	0.09	94,106,113,166	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	16SB	2215	7/7	0.95	0.10	92,100,110,164	0
60	K	23SB	3469	1/1	0.95	0.07	64,64,64,64	0
59	OHX	16SB	2216	7/7	0.95	0.12	98,101,113,179	0
58	MG	16SA	2357	1/1	0.95	0.07	63,63,63,63	0
59	OHX	16SB	2218	7/7	0.95	0.12	95,98,107,169	0
59	OHX	16SB	2220	7/7	0.95	0.07	98,104,110,191	0
58	MG	23SB	3422	1/1	0.95	0.07	72,72,72,72	0
59	OHX	16SB	2224	7/7	0.95	0.06	97,105,114,200	0
58	MG	23SB	3424	1/1	0.95	0.09	71,71,71,71	0
59	OHX	16SA	2320	7/7	0.95	0.08	99,106,126,191	0
59	OHX	16SB	2229	7/7	0.95	0.06	111,112,116,211	0
58	MG	23SB	3233	1/1	0.95	0.21	41,41,41,41	0
58	MG	16SA	2207	1/1	0.95	0.17	42,42,42,42	0
59	OHX	16SB	2235	7/7	0.95	0.06	105,111,120,212	0
58	MG	23SA	3391	1/1	0.95	0.10	37,37,37,37	0
58	MG	16SB	2351	1/1	0.95	0.07	68,68,68,68	0
58	MG	23SB	3238	1/1	0.95	0.17	46,46,46,46	0
58	MG	23SA	3479	1/1	0.95	0.11	76,76,76,76	0
59	OHX	23SA	3316	7/7	0.95	0.06	90,97,113,204	0
58	MG	16SB	2358	1/1	0.95	0.06	105,105,105,105	0
58	MG	23SA	3392	1/1	0.95	0.08	52,52,52,52	0
59	OHX	16SA	2329	7/7	0.95	0.06	144,149,154,226	0
60	K	23SB	3495	1/1	0.95	0.05	73,73,73,73	0
60	K	23SB	3496	1/1	0.95	0.08	85,85,85,85	0
60	K	23SA	3565	1/1	0.95	0.07	46,46,46,46	0
58	MG	16SA	2369	1/1	0.95	0.05	120,120,120,120	0
60	K	23SA	3570	1/1	0.95	0.07	51,51,51,51	0
59	OHX	16SB	2251	7/7	0.95	0.07	125,131,136,216	0
58	MG	16SA	2371	1/1	0.95	0.05	100,100,100,100	0
60	K	23SB	3503	1/1	0.95	0.12	72,72,72,72	0
60	K	23SA	3579	1/1	0.95	0.04	60,60,60,60	0
58	MG	23SA	3486	1/1	0.95	0.08	42,42,42,42	0
59	OHX	16SB	2254	7/7	0.95	0.07	100,105,128,186	0
58	MG	16SA	2202	1/1	0.95	0.20	57,57,57,57	0
59	OHX	23SA	3326	7/7	0.95	0.07	138,143,162,229	0
60	K	23SB	3510	1/1	0.95	0.04	75,75,75,75	0
58	MG	23SA	3414	1/1	0.95	0.06	50,50,50,50	0
59	OHX	16SB	2260	7/7	0.95	0.07	145,153,160,239	0
59	OHX	16SA	2336	7/7	0.95	0.07	106,114,119,210	0
59	OHX	16SA	2337	7/7	0.95	0.07	197,199,204,249	0
59	OHX	16SA	2339	7/7	0.95	0.08	93,98,102,201	0
58	MG	23SA	3076	1/1	0.95	0.18	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	16SB	2265	7/7	0.95	0.07	110,127,139,201	0
58	MG	23SA	3048	1/1	0.95	0.14	33,33,33,33	0
58	MG	16SB	2280	1/1	0.95	0.11	59,59,59,59	0
58	MG	L35B	102	1/1	0.95	0.11	91,91,91,91	0
58	MG	23SB	3357	1/1	0.95	0.10	65,65,65,65	0
60	K	23SA	3602	1/1	0.95	0.06	67,67,67,67	0
59	OHX	MRNA	101	7/7	0.95	0.07	109,113,121,212	0
58	MG	23SA	3135	1/1	0.95	0.11	55,55,55,55	0
60	K	23SA	3605	1/1	0.95	0.05	74,74,74,74	0
58	MG	16SA	2362	1/1	0.95	0.12	93,93,93,93	0
59	OHX	16SA	2334	7/7	0.96	0.06	161,169,178,239	0
58	MG	23SB	3274	1/1	0.96	0.31	57,57,57,57	0
58	MG	23SA	3442	1/1	0.96	0.06	48,48,48,48	0
59	OHX	23SA	3321	7/7	0.96	0.13	77,81,92,196	0
59	OHX	23SA	3322	7/7	0.96	0.06	88,102,106,193	0
59	OHX	16SB	2255	7/7	0.96	0.06	133,135,154,207	0
58	MG	23SB	3326	1/1	0.96	0.08	58,58,58,58	0
59	OHX	23SB	3169	7/7	0.96	0.06	104,124,127,192	0
59	OHX	16SA	2338	7/7	0.96	0.07	96,105,108,199	0
58	MG	16SA	2366	1/1	0.96	0.06	107,107,107,107	0
58	MG	23SB	3229	1/1	0.96	0.29	44,44,44,44	0
58	MG	23SA	3526	1/1	0.96	0.12	76,76,76,76	0
59	OHX	23SA	3328	7/7	0.96	0.12	93,96,104,189	0
59	OHX	23SA	3329	7/7	0.96	0.14	90,93,105,166	0
58	MG	23SA	3070	1/1	0.96	0.25	58,58,58,58	0
59	OHX	23SA	3332	7/7	0.96	0.06	98,103,115,190	0
58	MG	23SB	3331	1/1	0.96	0.19	58,58,58,58	0
58	MG	23SA	3129	1/1	0.96	0.06	54,54,54,54	0
59	OHX	23SA	3335	7/7	0.96	0.13	83,87,102,172	0
59	OHX	ESIA	101	7/7	0.96	0.07	144,159,173,194	0
58	MG	16SA	2347	1/1	0.96	0.07	78,78,78,78	0
58	MG	23SA	3462	1/1	0.96	0.07	51,51,51,51	0
58	MG	16SB	2347	1/1	0.96	0.10	92,92,92,92	0
59	OHX	23SA	3205	7/7	0.96	0.12	38,59,83,130	0
59	OHX	23SA	3208	7/7	0.96	0.12	72,79,94,145	0
58	MG	23SA	3463	1/1	0.96	0.07	60,60,60,60	0
58	MG	23SB	3347	1/1	0.96	0.08	65,65,65,65	0
58	MG	23SA	3035	1/1	0.96	0.14	52,52,52,52	0
59	OHX	23SA	3225	7/7	0.96	0.06	96,99,104,174	0
60	K	23SA	3637	1/1	0.96	0.14	60,60,60,60	0
59	OHX	16SA	2275	7/7	0.96	0.09	80,83,104,161	0
58	MG	23SB	3355	1/1	0.96	0.07	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	23SA	3230	7/7	0.96	0.09	67,77,97,168	0
59	OHX	16SA	2278	7/7	0.96	0.06	100,115,119,183	0
59	OHX	23SB	3030	7/7	0.96	0.14	80,86,109,145	0
58	MG	16SB	2352	1/1	0.96	0.07	73,73,73,73	0
59	OHX	23SB	3034	7/7	0.96	0.12	90,91,105,156	0
58	MG	23SA	3153	1/1	0.96	0.13	51,51,51,51	0
59	OHX	23SA	3237	7/7	0.96	0.11	79,89,105,162	0
58	MG	23SB	3358	1/1	0.96	0.06	47,47,47,47	0
59	OHX	23SB	3048	7/7	0.96	0.08	111,117,132,161	0
59	OHX	23SB	3049	7/7	0.96	0.06	92,103,111,173	0
59	OHX	23SA	3240	7/7	0.96	0.11	69,78,93,170	0
60	K	16SB	2373	1/1	0.96	0.13	93,93,93,93	0
58	MG	16SB	2357	1/1	0.96	0.06	96,96,96,96	0
59	OHX	23SA	3243	7/7	0.96	0.10	79,89,95,159	0
59	OHX	23SA	3245	7/7	0.96	0.13	86,96,104,177	0
59	OHX	23SB	3055	7/7	0.96	0.14	65,81,87,153	0
60	K	16SB	2378	1/1	0.96	0.07	94,94,94,94	0
58	MG	23SB	3242	1/1	0.96	0.19	39,39,39,39	0
59	OHX	23SA	3250	7/7	0.96	0.13	58,64,77,149	0
59	OHX	23SB	3060	7/7	0.96	0.10	95,99,105,180	0
58	MG	23SB	3362	1/1	0.96	0.07	49,49,49,49	0
60	K	16SB	2383	1/1	0.96	0.05	92,92,92,92	0
58	MG	23SA	3021	1/1	0.96	0.17	40,40,40,40	0
58	MG	16SB	2360	1/1	0.96	0.05	95,95,95,95	0
59	OHX	23SB	3064	7/7	0.96	0.18	77,82,98,167	0
58	MG	23SB	3367	1/1	0.96	0.09	49,49,49,49	0
59	OHX	16SA	2291	7/7	0.96	0.12	91,96,102,165	0
59	OHX	23SB	3068	7/7	0.96	0.17	87,92,101,181	0
59	OHX	23SB	3069	7/7	0.96	0.07	98,105,118,189	0
59	OHX	23SB	3070	7/7	0.96	0.14	81,89,95,163	0
59	OHX	23SB	3071	7/7	0.96	0.12	85,94,100,182	0
58	MG	23SA	3474	1/1	0.96	0.07	59,59,59,59	0
58	MG	23SA	3476	1/1	0.96	0.08	51,51,51,51	0
58	MG	5SA	217	1/1	0.96	0.12	85,85,85,85	0
60	K	16SB	2397	1/1	0.96	0.04	97,97,97,97	0
58	MG	16SA	2342	1/1	0.96	0.07	85,85,85,85	0
58	MG	23SB	3374	1/1	0.96	0.11	48,48,48,48	0
59	OHX	23SA	3264	7/7	0.96	0.05	98,101,114,196	0
59	OHX	23SB	3082	7/7	0.96	0.12	79,84,97,168	0
59	OHX	23SB	3084	7/7	0.96	0.09	94,97,110,191	0
59	OHX	23SB	3085	7/7	0.96	0.06	105,109,112,199	0
59	OHX	23SA	3265	7/7	0.96	0.07	83,93,109,192	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SB	3375	1/1	0.96	0.07	66,66,66,66	0
58	MG	23SA	3039	1/1	0.96	0.14	30,30,30,30	0
59	OHX	23SB	3091	7/7	0.96	0.12	81,89,94,189	0
58	MG	23SA	3390	1/1	0.96	0.06	38,38,38,38	0
58	MG	23SA	3113	1/1	0.96	0.23	52,52,52,52	0
59	OHX	23SB	3094	7/7	0.96	0.06	107,111,129,187	0
58	MG	23SA	3004	1/1	0.96	0.24	35,35,35,35	0
59	OHX	23SB	3096	7/7	0.96	0.06	128,134,148,208	0
59	OHX	23SB	3097	7/7	0.96	0.16	82,88,95,172	0
59	OHX	23SB	3098	7/7	0.96	0.10	97,101,109,177	0
59	OHX	16SA	2302	7/7	0.96	0.07	105,107,113,183	0
59	OHX	23SB	3101	7/7	0.96	0.07	104,111,115,185	0
60	K	23SB	3453	1/1	0.96	0.05	59,59,59,59	0
58	MG	L27A	104	1/1	0.96	0.09	65,65,65,65	0
60	K	23SB	3456	1/1	0.96	0.04	75,75,75,75	0
60	K	23SB	3457	1/1	0.96	0.05	63,63,63,63	0
58	MG	23SA	3042	1/1	0.96	0.14	47,47,47,47	0
60	K	23SB	3460	1/1	0.96	0.06	61,61,61,61	0
58	MG	23SA	3396	1/1	0.96	0.06	34,34,34,34	0
59	OHX	23SA	3276	7/7	0.96	0.06	87,98,104,204	0
58	MG	23SA	3399	1/1	0.96	0.06	37,37,37,37	0
58	MG	23SB	3305	1/1	0.96	0.09	65,65,65,65	0
59	OHX	23SB	3108	7/7	0.96	0.06	95,101,104,191	0
59	OHX	23SB	3109	7/7	0.96	0.05	118,119,125,207	0
59	OHX	5SA	207	7/7	0.96	0.06	97,103,109,176	0
59	OHX	23SA	3279	7/7	0.96	0.06	92,97,106,198	0
58	MG	23SA	3401	1/1	0.96	0.06	63,63,63,63	0
59	OHX	5SA	210	7/7	0.96	0.17	81,88,100,168	0
59	OHX	5SA	211	7/7	0.96	0.06	101,107,113,190	0
59	OHX	23SB	3115	7/7	0.96	0.05	98,104,112,200	0
59	OHX	23SA	3282	7/7	0.96	0.06	101,104,113,206	0
58	MG	16SA	2361	1/1	0.96	0.06	75,75,75,75	0
58	MG	23SB	3392	1/1	0.96	0.09	52,52,52,52	0
58	MG	23SA	3025	1/1	0.96	0.29	64,64,64,64	0
59	OHX	23SA	3287	7/7	0.96	0.07	97,100,105,189	0
58	MG	23SA	3413	1/1	0.96	0.07	55,55,55,55	0
58	MG	23SA	3098	1/1	0.96	0.06	54,54,54,54	0
58	MG	23SA	3501	1/1	0.96	0.09	66,66,66,66	0
60	K	23SB	3482	1/1	0.96	0.05	66,66,66,66	0
58	MG	23SB	3406	1/1	0.96	0.16	68,68,68,68	0
59	OHX	23SB	3125	7/7	0.96	0.07	90,93,105,217	0
59	OHX	16SB	2207	7/7	0.96	0.07	89,95,104,159	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	16SB	2213	7/7	0.96	0.07	123,129,137,180	0
59	OHX	16SB	2214	7/7	0.96	0.08	116,119,134,169	0
59	OHX	23SA	3294	7/7	0.96	0.10	85,97,105,191	0
58	MG	16SA	2344	1/1	0.96	0.06	82,82,82,82	0
59	OHX	23SA	3296	7/7	0.96	0.06	94,97,113,192	0
58	MG	16SA	2345	1/1	0.96	0.06	89,89,89,89	0
58	MG	23SB	3413	1/1	0.96	0.07	42,42,42,42	0
59	OHX	23SB	3137	7/7	0.96	0.05	99,103,110,209	0
59	OHX	16SB	2221	7/7	0.96	0.05	108,115,121,190	0
58	MG	23SB	3414	1/1	0.96	0.06	83,83,83,83	0
58	MG	23SB	3416	1/1	0.96	0.07	98,98,98,98	0
60	K	23SA	3566	1/1	0.96	0.04	51,51,51,51	0
58	MG	23SA	3510	1/1	0.96	0.12	75,75,75,75	0
58	MG	23SB	3418	1/1	0.96	0.07	51,51,51,51	0
60	K	23SA	3574	1/1	0.96	0.04	52,52,52,52	0
59	OHX	23SA	3305	7/7	0.96	0.05	97,104,122,196	0
59	OHX	16SB	2231	7/7	0.96	0.06	94,98,110,186	0
59	OHX	16SB	2232	7/7	0.96	0.05	126,132,138,218	0
58	MG	23SB	3217	1/1	0.96	0.10	48,48,48,48	0
58	MG	23SA	3029	1/1	0.96	0.16	37,37,37,37	0
60	K	23SA	3582	1/1	0.96	0.06	53,53,53,53	0
60	K	23SA	3583	1/1	0.96	0.10	65,65,65,65	0
58	MG	16SA	2364	1/1	0.96	0.07	86,86,86,86	0
58	MG	16SA	2365	1/1	0.96	0.09	53,53,53,53	0
58	MG	23SB	3425	1/1	0.96	0.18	84,84,84,84	0
58	MG	23SA	3431	1/1	0.96	0.05	79,79,79,79	0
59	OHX	16SB	2240	7/7	0.96	0.06	120,126,130,218	0
58	MG	23SA	3104	1/1	0.96	0.07	63,63,63,63	0
59	OHX	16SB	2243	7/7	0.96	0.06	115,117,121,193	0
58	MG	23SB	3321	1/1	0.96	0.15	39,39,39,39	0
59	OHX	16SB	2245	7/7	0.96	0.06	100,107,114,181	0
58	MG	23SA	3518	1/1	0.96	0.14	61,61,61,61	0
58	MG	23SB	3433	1/1	0.96	0.06	106,106,106,106	0
59	OHX	16SB	2248	7/7	0.96	0.05	123,130,136,226	0
60	K	L16B	201	1/1	0.96	0.05	92,92,92,92	0
60	K	23SA	3600	1/1	0.96	0.07	68,68,68,68	0
58	MG	23SA	3105	1/1	0.96	0.20	59,59,59,59	0
59	OHX	23SB	3083	7/7	0.97	0.05	110,114,121,181	0
59	OHX	23SA	3234	7/7	0.97	0.08	91,94,101,156	0
58	MG	23SB	3337	1/1	0.97	0.06	48,48,48,48	0
60	K	23SA	3630	1/1	0.97	0.07	80,80,80,80	0
59	OHX	23SB	3086	7/7	0.97	0.10	85,86,104,167	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	16SB	2225	7/7	0.97	0.10	94,95,103,163	0
59	OHX	16SB	2226	7/7	0.97	0.05	117,119,123,191	0
58	MG	23SB	3343	1/1	0.97	0.09	65,65,65,65	0
58	MG	23SB	3344	1/1	0.97	0.06	50,50,50,50	0
58	MG	23SA	3456	1/1	0.97	0.06	50,50,50,50	0
59	OHX	16SB	2230	7/7	0.97	0.04	126,136,146,203	0
58	MG	23SA	3458	1/1	0.97	0.07	55,55,55,55	0
59	OHX	23SA	3242	7/7	0.97	0.17	54,62,72,135	0
60	K	5SA	218	1/1	0.97	0.04	79,79,79,79	0
59	OHX	23SA	3330	7/7	0.97	0.06	112,118,131,203	0
60	K	L2A	301	1/1	0.97	0.05	47,47,47,47	0
58	MG	23SB	3423	1/1	0.97	0.05	73,73,73,73	0
59	OHX	23SA	3244	7/7	0.97	0.10	76,82,89,144	0
58	MG	23SA	3460	1/1	0.97	0.09	38,38,38,38	0
59	OHX	23SB	3100	7/7	0.97	0.11	90,93,100,175	0
59	OHX	16SB	2237	7/7	0.97	0.06	109,114,118,214	0
59	OHX	23SA	3246	7/7	0.97	0.08	88,94,111,180	0
58	MG	23SB	3352	1/1	0.97	0.06	47,47,47,47	0
59	OHX	23SA	3248	7/7	0.97	0.11	84,89,103,166	0
59	OHX	16SB	2241	7/7	0.97	0.06	97,104,110,191	0
59	OHX	23SA	3249	7/7	0.97	0.13	81,94,100,157	0
60	K	16SB	2371	1/1	0.97	0.05	99,99,99,99	0
60	K	16SB	2372	1/1	0.97	0.04	105,105,105,105	0
58	MG	23SB	3427	1/1	0.97	0.13	49,49,49,49	0
58	MG	23SA	3119	1/1	0.97	0.05	61,61,61,61	0
60	K	16SA	2397	1/1	0.97	0.07	62,62,62,62	0
59	OHX	23SA	3253	7/7	0.97	0.05	106,111,120,187	0
60	K	16SA	2400	1/1	0.97	0.04	89,89,89,89	0
58	MG	16SB	2345	1/1	0.97	0.07	64,64,64,64	0
58	MG	16SA	2372	1/1	0.97	0.05	92,92,92,92	0
58	MG	16SA	2373	1/1	0.97	0.12	98,98,98,98	0
58	MG	23SB	3221	1/1	0.97	0.14	47,47,47,47	0
58	MG	16SB	2349	1/1	0.97	0.17	90,90,90,90	0
58	MG	16SB	2350	1/1	0.97	0.08	99,99,99,99	0
58	MG	16SA	2351	1/1	0.97	0.08	103,103,103,103	0
58	MG	S4A	302	1/1	0.97	0.06	98,98,98,98	0
58	MG	16SA	2206	1/1	0.97	0.36	40,40,40,40	0
60	K	16SA	2410	1/1	0.97	0.04	77,77,77,77	0
58	MG	23SA	3415	1/1	0.97	0.05	67,67,67,67	0
58	MG	23SA	3417	1/1	0.97	0.10	58,58,58,58	0
58	MG	16SB	2359	1/1	0.97	0.06	103,103,103,103	0
59	OHX	16SB	2258	7/7	0.97	0.05	144,147,157,204	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SA	3028	1/1	0.97	0.23	41,41,41,41	0
58	MG	23SA	3038	1/1	0.97	0.17	45,45,45,45	0
58	MG	16SB	2362	1/1	0.97	0.09	113,113,113,113	0
58	MG	23SA	3385	1/1	0.97	0.06	41,41,41,41	0
58	MG	23SB	3235	1/1	0.97	0.21	59,59,59,59	0
59	OHX	23SB	3128	7/7	0.97	0.05	108,110,117,202	0
58	MG	23SA	3387	1/1	0.97	0.06	55,55,55,55	0
59	OHX	16SA	2265	7/7	0.97	0.07	104,105,123,150	0
59	OHX	16SA	2269	7/7	0.97	0.08	81,87,100,141	0
58	MG	23SA	3389	1/1	0.97	0.06	41,41,41,41	0
59	OHX	23SB	3133	7/7	0.97	0.05	96,99,110,198	0
59	OHX	16SA	2273	7/7	0.97	0.09	96,101,112,163	0
58	MG	23SA	3430	1/1	0.97	0.05	74,74,74,74	0
58	MG	16SA	2370	1/1	0.97	0.05	102,102,102,102	0
58	MG	23SA	3433	1/1	0.97	0.05	77,77,77,77	0
59	OHX	23SA	3281	7/7	0.97	0.11	76,91,95,177	0
58	MG	23SA	3030	1/1	0.97	0.28	51,51,51,51	0
59	OHX	23SA	3283	7/7	0.97	0.05	106,113,119,187	0
58	MG	23SA	3493	1/1	0.97	0.05	44,44,44,44	0
58	MG	23SA	3066	1/1	0.97	0.20	59,59,59,59	0
58	MG	23SA	3438	1/1	0.97	0.05	88,88,88,88	0
59	OHX	16SA	2282	7/7	0.97	0.12	84,85,91,155	0
58	MG	23SA	3041	1/1	0.97	0.07	32,32,32,32	0
60	K	23SA	3551	1/1	0.97	0.04	80,80,80,80	0
59	OHX	23SB	3147	7/7	0.97	0.05	109,122,129,186	0
59	OHX	23SA	3289	7/7	0.97	0.14	72,79,86,180	0
60	K	23SB	3455	1/1	0.97	0.11	61,61,61,61	0
59	OHX	PSIB	101	7/7	0.97	0.08	104,107,121,137	0
59	OHX	23SA	3290	7/7	0.97	0.12	83,93,105,198	0
59	OHX	ESIB	101	7/7	0.97	0.06	150,166,173,207	0
58	MG	23SA	3394	1/1	0.97	0.08	71,71,71,71	0
59	OHX	23SB	3020	7/7	0.97	0.07	89,94,103,130	0
59	OHX	23SB	3022	7/7	0.97	0.08	92,97,106,138	0
59	OHX	23SB	3023	7/7	0.97	0.08	75,79,88,131	0
60	K	23SA	3561	1/1	0.97	0.06	75,75,75,75	0
59	OHX	23SB	3025	7/7	0.97	0.11	87,93,101,135	0
59	OHX	23SB	3026	7/7	0.97	0.12	83,92,104,131	0
59	OHX	S19A	101	7/7	0.97	0.06	115,125,129,181	0
58	MG	23SB	3395	1/1	0.97	0.12	43,43,43,43	0
59	OHX	ASIA	103	7/7	0.97	0.07	142,155,169,215	0
60	K	23SA	3567	1/1	0.97	0.06	46,46,46,46	0
59	OHX	16SA	2287	7/7	0.97	0.08	96,103,109,167	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SB	3247	1/1	0.97	0.06	45,45,45,45	0
60	K	23SA	3572	1/1	0.97	0.05	51,51,51,51	0
59	OHX	23SB	3038	7/7	0.97	0.09	82,91,105,153	0
59	OHX	23SB	3039	7/7	0.97	0.07	92,95,103,158	0
59	OHX	23SA	3297	7/7	0.97	0.09	97,99,109,183	0
60	K	23SB	3477	1/1	0.97	0.03	60,60,60,60	0
59	OHX	23SB	3043	7/7	0.97	0.08	81,88,108,166	0
59	OHX	23SB	3044	7/7	0.97	0.15	69,77,95,151	0
59	OHX	23SB	3045	7/7	0.97	0.08	84,95,110,160	0
59	OHX	23SB	3046	7/7	0.97	0.09	64,76,84,147	0
59	OHX	23SB	3047	7/7	0.97	0.11	74,90,94,149	0
60	K	23SB	3483	1/1	0.97	0.06	69,69,69,69	0
60	K	23SB	3484	1/1	0.97	0.07	80,80,80,80	0
59	OHX	5SA	205	7/7	0.97	0.09	75,95,106,138	0
60	K	23SA	3585	1/1	0.97	0.08	54,54,54,54	0
59	OHX	TRNA	101	7/7	0.97	0.06	135,137,154,191	0
58	MG	L15A	203	1/1	0.97	0.11	65,65,65,65	0
58	MG	23SB	3208	1/1	0.97	0.30	52,52,52,52	0
59	OHX	23SA	3200	7/7	0.97	0.11	62,89,92,138	0
60	K	23SB	3491	1/1	0.97	0.08	68,68,68,68	0
60	K	23SA	3590	1/1	0.97	0.09	67,67,67,67	0
58	MG	23SB	3403	1/1	0.97	0.06	52,52,52,52	0
59	OHX	23SA	3303	7/7	0.97	0.10	91,92,104,183	0
59	OHX	23SB	3057	7/7	0.97	0.10	96,99,115,167	0
59	OHX	23SA	3207	7/7	0.97	0.11	73,78,88,136	0
60	K	23SB	3497	1/1	0.97	0.06	48,48,48,48	0
58	MG	23SB	3404	1/1	0.97	0.08	37,37,37,37	0
60	K	23SA	3596	1/1	0.97	0.03	59,59,59,59	0
59	OHX	23SA	3209	7/7	0.97	0.08	76,90,103,134	0
60	K	23SA	3598	1/1	0.97	0.11	58,58,58,58	0
59	OHX	23SA	3210	7/7	0.97	0.11	57,67,87,122	0
59	OHX	23SA	3211	7/7	0.97	0.11	61,66,83,132	0
58	MG	23SA	3444	1/1	0.97	0.11	29,29,29,29	0
59	OHX	23SA	3220	7/7	0.97	0.07	85,86,101,146	0
60	K	23SB	3506	1/1	0.97	0.06	75,75,75,75	0
59	OHX	23SB	3065	7/7	0.97	0.10	86,93,109,147	0
58	MG	23SB	3290	1/1	0.97	0.31	47,47,47,47	0
59	OHX	23SA	3222	7/7	0.97	0.06	99,103,115,175	0
58	MG	23SA	3395	1/1	0.97	0.07	34,34,34,34	0
60	K	23SA	3607	1/1	0.97	0.04	59,59,59,59	0
59	OHX	16SB	2210	7/7	0.97	0.10	96,101,107,163	0
59	OHX	16SB	2211	7/7	0.97	0.07	101,114,117,162	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SB	3411	1/1	0.97	0.06	41,41,41,41	0
59	OHX	23SB	3072	7/7	0.97	0.08	81,88,103,161	0
58	MG	23SB	3412	1/1	0.97	0.06	56,56,56,56	0
58	MG	23SB	3211	1/1	0.97	0.05	52,52,52,52	0
59	OHX	23SA	3228	7/7	0.97	0.09	70,82,89,143	0
60	K	23SA	3616	1/1	0.97	0.05	42,42,42,42	0
58	MG	16SA	2358	1/1	0.97	0.10	48,48,48,48	0
60	K	5SB	216	1/1	0.97	0.03	101,101,101,101	0
60	K	L2B	301	1/1	0.97	0.05	62,62,62,62	0
59	OHX	23SB	3077	7/7	0.97	0.10	87,95,105,161	0
59	OHX	23SB	3078	7/7	0.97	0.05	115,122,131,189	0
59	OHX	5SB	201	7/7	0.97	0.07	103,112,120,159	0
58	MG	23SB	3415	1/1	0.97	0.07	46,46,46,46	0
59	OHX	23SB	3080	7/7	0.97	0.06	95,105,112,179	0
59	OHX	23SA	3232	7/7	0.97	0.07	78,84,95,161	0
58	MG	23SA	3507	1/1	0.97	0.07	55,55,55,55	0
58	MG	23SA	3457	1/1	0.98	0.09	37,37,37,37	0
58	MG	23SA	3498	1/1	0.98	0.06	38,38,38,38	0
58	MG	23SB	3397	1/1	0.98	0.06	59,59,59,59	0
58	MG	23SA	3409	1/1	0.98	0.05	42,42,42,42	0
58	MG	23SA	3428	1/1	0.98	0.07	78,78,78,78	0
59	OHX	16SA	2285	7/7	0.98	0.04	123,129,131,218	0
59	OHX	ASIB	101	7/7	0.98	0.04	114,126,131,187	0
59	OHX	23SA	3191	7/7	0.98	0.06	79,89,101,127	0
59	OHX	23SA	3193	7/7	0.98	0.08	66,70,81,129	0
59	OHX	23SA	3194	7/7	0.98	0.08	71,75,90,126	0
58	MG	23SB	3401	1/1	0.98	0.09	70,70,70,70	0
59	OHX	23SA	3196	7/7	0.98	0.10	70,74,94,114	0
59	OHX	23SA	3197	7/7	0.98	0.07	73,80,93,129	0
59	OHX	23SB	3134	7/7	0.98	0.10	82,85,92,165	0
59	OHX	23SB	3008	7/7	0.98	0.07	89,94,103,131	0
59	OHX	23SB	3012	7/7	0.98	0.08	71,76,93,139	0
59	OHX	23SB	3016	7/7	0.98	0.06	91,93,102,122	0
59	OHX	23SB	3018	7/7	0.98	0.07	53,69,86,133	0
59	OHX	23SA	3198	7/7	0.98	0.07	58,71,88,129	0
59	OHX	23SB	3021	7/7	0.98	0.08	68,77,87,136	0
60	K	16SB	2385	1/1	0.98	0.04	92,92,92,92	0
59	OHX	23SA	3199	7/7	0.98	0.06	65,73,83,129	0
60	K	23SA	3538	1/1	0.98	0.06	63,63,63,63	0
59	OHX	5SA	204	7/7	0.98	0.06	79,82,94,113	0
59	OHX	23SB	3024	7/7	0.98	0.10	69,75,81,158	0
58	MG	23SB	3402	1/1	0.98	0.05	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	23SA	3201	7/7	0.98	0.07	79,87,98,127	0
59	OHX	23SB	3028	7/7	0.98	0.07	85,85,101,143	0
59	OHX	23SA	3202	7/7	0.98	0.08	55,70,77,136	0
59	OHX	23SB	3031	7/7	0.98	0.07	88,95,98,151	0
59	OHX	23SA	3203	7/7	0.98	0.06	77,78,101,130	0
59	OHX	23SA	3204	7/7	0.98	0.06	66,71,91,123	0
58	MG	23SA	3074	1/1	0.98	0.04	72,72,72,72	0
59	OHX	23SA	3206	7/7	0.98	0.10	74,75,95,140	0
59	OHX	23SB	3037	7/7	0.98	0.08	97,101,106,155	0
58	MG	23SA	3383	1/1	0.98	0.05	39,39,39,39	0
58	MG	23SA	3432	1/1	0.98	0.04	67,67,67,67	0
59	OHX	23SB	3040	7/7	0.98	0.07	68,76,88,142	0
58	MG	16SA	2356	1/1	0.98	0.10	67,67,67,67	0
59	OHX	23SB	3042	7/7	0.98	0.05	101,107,110,164	0
58	MG	23SA	3508	1/1	0.98	0.05	38,38,38,38	0
59	OHX	L17A	201	7/7	0.98	0.12	63,68,78,121	0
58	MG	23SB	3409	1/1	0.98	0.04	58,58,58,58	0
58	MG	23SB	3410	1/1	0.98	0.03	75,75,75,75	0
59	OHX	23SA	3213	7/7	0.98	0.07	74,78,90,126	0
59	OHX	23SA	3216	7/7	0.98	0.08	85,94,99,152	0
59	OHX	23SA	3217	7/7	0.98	0.05	80,82,89,137	0
59	OHX	16SB	2202	7/7	0.98	0.08	86,91,97,124	0
59	OHX	16SB	2204	7/7	0.98	0.07	86,96,104,143	0
59	OHX	23SA	3218	7/7	0.98	0.09	78,86,101,146	0
59	OHX	23SB	3053	7/7	0.98	0.06	92,97,113,157	0
59	OHX	16SB	2209	7/7	0.98	0.06	90,99,108,137	0
59	OHX	23SA	3219	7/7	0.98	0.08	82,94,104,144	0
60	K	23SA	3569	1/1	0.98	0.03	46,46,46,46	0
59	OHX	23SB	3056	7/7	0.98	0.06	95,102,108,155	0
58	MG	23SA	3509	1/1	0.98	0.05	52,52,52,52	0
60	K	23SA	3573	1/1	0.98	0.06	63,63,63,63	0
59	OHX	16SB	2212	7/7	0.98	0.07	96,100,102,148	0
60	K	23SB	3459	1/1	0.98	0.07	56,56,56,56	0
58	MG	23SB	3340	1/1	0.98	0.08	45,45,45,45	0
60	K	23SA	3576	1/1	0.98	0.07	39,39,39,39	0
58	MG	23SB	3341	1/1	0.98	0.06	53,53,53,53	0
59	OHX	23SA	3313	7/7	0.98	0.10	67,73,83,167	0
59	OHX	23SA	3223	7/7	0.98	0.06	81,87,101,144	0
58	MG	16SA	2348	1/1	0.98	0.04	58,58,58,58	0
58	MG	23SA	3468	1/1	0.98	0.07	36,36,36,36	0
59	OHX	16SB	2219	7/7	0.98	0.05	103,105,116,174	0
58	MG	23SB	3345	1/1	0.98	0.05	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SA	3469	1/1	0.98	0.06	40,40,40,40	0
58	MG	23SA	3436	1/1	0.98	0.10	80,80,80,80	0
59	OHX	16SB	2223	7/7	0.98	0.04	110,112,122,172	0
59	OHX	23SA	3229	7/7	0.98	0.07	81,96,99,154	0
58	MG	23SA	3514	1/1	0.98	0.13	51,51,51,51	0
58	MG	23SB	3350	1/1	0.98	0.07	37,37,37,37	0
58	MG	23SB	3351	1/1	0.98	0.04	53,53,53,53	0
58	MG	23SA	3473	1/1	0.98	0.05	67,67,67,67	0
58	MG	23SB	3353	1/1	0.98	0.05	57,57,57,57	0
59	OHX	23SA	3235	7/7	0.98	0.06	75,87,106,150	0
58	MG	16SA	2343	1/1	0.98	0.09	73,73,73,73	0
58	MG	23SB	3426	1/1	0.98	0.05	70,70,70,70	0
59	OHX	23SA	3238	7/7	0.98	0.11	64,65,76,149	0
58	MG	23SA	3517	1/1	0.98	0.07	82,82,82,82	0
58	MG	23SA	3418	1/1	0.98	0.08	36,36,36,36	0
58	MG	16SB	2328	1/1	0.98	0.08	58,58,58,58	0
58	MG	23SA	3441	1/1	0.98	0.05	43,43,43,43	0
58	MG	23SA	3521	1/1	0.98	0.04	58,58,58,58	0
58	MG	23SA	3419	1/1	0.98	0.05	64,64,64,64	0
58	MG	23SA	3090	1/1	0.98	0.13	49,49,49,49	0
58	MG	23SB	3435	1/1	0.98	0.10	94,94,94,94	0
58	MG	23SA	3481	1/1	0.98	0.10	55,55,55,55	0
58	MG	23SA	3527	1/1	0.98	0.06	42,42,42,42	0
59	OHX	23SB	3090	7/7	0.98	0.05	110,117,123,191	0
58	MG	16SB	2337	1/1	0.98	0.08	100,100,100,100	0
58	MG	23SA	3062	1/1	0.98	0.10	61,61,61,61	0
59	OHX	23SA	3251	7/7	0.98	0.04	99,104,112,176	0
59	OHX	L17B	201	7/7	0.98	0.10	72,77,87,116	0
58	MG	23SA	3058	1/1	0.98	0.05	53,53,53,53	0
58	MG	23SA	3447	1/1	0.98	0.05	34,34,34,34	0
60	K	23SA	3615	1/1	0.98	0.08	69,69,69,69	0
58	MG	5SB	215	1/1	0.98	0.05	88,88,88,88	0
58	MG	23SA	3485	1/1	0.98	0.04	51,51,51,51	0
58	MG	23SA	3533	1/1	0.98	0.05	49,49,49,49	0
58	MG	23SB	3225	1/1	0.98	0.08	39,39,39,39	0
58	MG	23SA	3448	1/1	0.98	0.05	40,40,40,40	0
60	K	23SA	3621	1/1	0.98	0.08	77,77,77,77	0
58	MG	23SB	3379	1/1	0.98	0.05	41,41,41,41	0
58	MG	23SA	3449	1/1	0.98	0.05	44,44,44,44	0
58	MG	23SA	3488	1/1	0.98	0.06	49,49,49,49	0
58	MG	23SA	3407	1/1	0.98	0.05	48,48,48,48	0
59	OHX	23SA	3263	7/7	0.98	0.08	64,70,95,142	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	OHX	16SA	2266	7/7	0.98	0.07	89,99,109,141	0
58	MG	23SA	3490	1/1	0.98	0.07	42,42,42,42	0
59	OHX	16SA	2270	7/7	0.98	0.06	108,118,121,150	0
58	MG	23SA	3492	1/1	0.98	0.04	52,52,52,52	0
59	OHX	16SA	2272	7/7	0.98	0.07	96,111,118,140	0
58	MG	23SA	3453	1/1	0.98	0.06	34,34,34,34	0
60	K	16SA	2392	1/1	0.98	0.04	88,88,88,88	0
60	K	16SA	2393	1/1	0.98	0.07	80,80,80,80	0
60	K	16SA	2394	1/1	0.98	0.03	75,75,75,75	0
58	MG	16SB	2355	1/1	0.98	0.05	90,90,90,90	0
59	OHX	23SA	3271	7/7	0.98	0.09	70,73,91,159	0
58	MG	23SA	3494	1/1	0.98	0.05	48,48,48,48	0
58	MG	L4A	301	1/1	0.98	0.12	48,48,48,48	0
60	K	16SA	2399	1/1	0.98	0.04	65,65,65,65	0
59	OHX	16SB	2269	7/7	0.98	0.06	146,151,156,215	0
59	OHX	16SA	2277	7/7	0.98	0.07	94,95,103,165	0
58	MG	L4A	303	1/1	0.98	0.09	73,73,73,73	0
58	MG	23SA	3425	1/1	0.98	0.09	61,61,61,61	0
59	OHX	ASIA	101	7/7	0.98	0.06	100,111,125,168	0
59	OHX	L19A	201	7/7	0.99	0.05	85,89,97,137	0
58	MG	23SA	3536	1/1	0.99	0.09	36,36,36,36	0
58	MG	23SA	3459	1/1	0.99	0.04	66,66,66,66	0
59	OHX	23SA	3214	7/7	0.99	0.05	62,70,75,153	0
59	OHX	23SB	3027	7/7	0.99	0.07	78,82,92,125	0
59	OHX	23SA	3215	7/7	0.99	0.05	81,87,93,144	0
59	OHX	23SB	3029	7/7	0.99	0.05	91,95,103,141	0
58	MG	16SB	2353	1/1	0.99	0.11	76,76,76,76	0
59	OHX	16SB	2201	7/7	0.99	0.05	81,88,90,106	0
58	MG	23SA	3386	1/1	0.99	0.05	47,47,47,47	0
59	OHX	23SB	3033	7/7	0.99	0.08	79,88,93,147	0
59	OHX	16SB	2203	7/7	0.99	0.06	91,94,102,133	0
58	MG	23SA	3496	1/1	0.99	0.06	63,63,63,63	0
59	OHX	16SB	2205	7/7	0.99	0.04	105,111,117,152	0
59	OHX	16SB	2206	7/7	0.99	0.06	95,98,106,125	0
58	MG	16SB	2356	1/1	0.99	0.11	78,78,78,78	0
59	OHX	16SB	2208	7/7	0.99	0.05	79,80,93,120	0
58	MG	23SB	3348	1/1	0.99	0.12	75,75,75,75	0
58	MG	23SA	3412	1/1	0.99	0.04	40,40,40,40	0
58	MG	5SA	215	1/1	0.99	0.04	64,64,64,64	0
58	MG	16SA	2346	1/1	0.99	0.07	70,70,70,70	0
58	MG	23SB	3421	1/1	0.99	0.03	96,96,96,96	0
58	MG	23SA	3388	1/1	0.99	0.04	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SA	3435	1/1	0.99	0.07	75,75,75,75	0
58	MG	L3A	302	1/1	0.99	0.04	39,39,39,39	0
58	MG	23SA	3397	1/1	0.99	0.04	46,46,46,46	0
58	MG	23SA	3502	1/1	0.99	0.07	32,32,32,32	0
58	MG	23SA	3503	1/1	0.99	0.10	70,70,70,70	0
58	MG	23SB	3359	1/1	0.99	0.12	66,66,66,66	0
58	MG	23SA	3416	1/1	0.99	0.04	63,63,63,63	0
58	MG	23SA	3398	1/1	0.99	0.04	35,35,35,35	0
58	MG	23SA	3506	1/1	0.99	0.03	39,39,39,39	0
58	MG	23SB	3432	1/1	0.99	0.04	46,46,46,46	0
58	MG	23SB	3363	1/1	0.99	0.08	47,47,47,47	0
58	MG	23SA	3470	1/1	0.99	0.05	53,53,53,53	0
58	MG	23SB	3365	1/1	0.99	0.03	45,45,45,45	0
58	MG	23SA	3471	1/1	0.99	0.02	53,53,53,53	0
58	MG	23SA	3439	1/1	0.99	0.07	38,38,38,38	0
58	MG	23SB	3438	1/1	0.99	0.05	45,45,45,45	0
60	K	23SA	3571	1/1	0.99	0.04	38,38,38,38	0
58	MG	23SB	3368	1/1	0.99	0.03	47,47,47,47	0
58	MG	23SA	3440	1/1	0.99	0.11	88,88,88,88	0
58	MG	16SA	2352	1/1	0.99	0.06	62,62,62,62	0
58	MG	23SB	3371	1/1	0.99	0.04	39,39,39,39	0
58	MG	23SA	3475	1/1	0.99	0.06	64,64,64,64	0
60	K	23SA	3577	1/1	0.99	0.03	45,45,45,45	0
58	MG	23SA	3400	1/1	0.99	0.07	69,69,69,69	0
58	MG	16SA	2349	1/1	0.99	0.04	82,82,82,82	0
58	MG	23SA	3052	1/1	0.99	0.23	40,40,40,40	0
58	MG	23SB	3376	1/1	0.99	0.03	50,50,50,50	0
58	MG	23SA	3405	1/1	0.99	0.09	46,46,46,46	0
58	MG	23SA	3480	1/1	0.99	0.04	82,82,82,82	0
58	MG	23SA	3446	1/1	0.99	0.06	43,43,43,43	0
59	OHX	16SA	2260	7/7	0.99	0.06	68,70,81,89	0
59	OHX	16SA	2261	7/7	0.99	0.07	71,82,87,97	0
59	OHX	16SA	2262	7/7	0.99	0.06	62,71,88,103	0
59	OHX	16SA	2263	7/7	0.99	0.07	80,83,92,128	0
59	OHX	16SA	2264	7/7	0.99	0.05	96,101,107,133	0
58	MG	23SA	3423	1/1	0.99	0.02	50,50,50,50	0
58	MG	23SB	3382	1/1	0.99	0.05	61,61,61,61	0
59	OHX	16SA	2267	7/7	0.99	0.05	85,94,97,129	0
59	OHX	16SA	2268	7/7	0.99	0.06	96,97,109,142	0
58	MG	23SA	3520	1/1	0.99	0.13	79,79,79,79	0
59	OHX	5SB	202	7/7	0.99	0.05	96,105,116,131	0
58	MG	23SA	3406	1/1	0.99	0.04	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SA	3522	1/1	0.99	0.03	73,73,73,73	0
59	OHX	PSIA	102	7/7	0.99	0.09	94,95,102,131	0
58	MG	16SA	2354	1/1	0.99	0.04	68,68,68,68	0
58	MG	23SB	3387	1/1	0.99	0.08	53,53,53,53	0
58	MG	23SA	3450	1/1	0.99	0.03	56,56,56,56	0
58	MG	16SB	2334	1/1	0.99	0.06	68,68,68,68	0
59	OHX	23SA	3178	7/7	0.99	0.10	43,55,71,95	0
59	OHX	23SA	3179	7/7	0.99	0.12	41,50,60,111	0
59	OHX	23SA	3180	7/7	0.99	0.10	70,70,90,126	0
59	OHX	23SA	3181	7/7	0.99	0.06	55,67,74,94	0
59	OHX	23SA	3182	7/7	0.99	0.06	81,85,100,104	0
59	OHX	23SA	3183	7/7	0.99	0.05	63,65,71,97	0
59	OHX	23SA	3185	7/7	0.99	0.05	69,73,78,116	0
59	OHX	23SA	3186	7/7	0.99	0.04	62,68,77,96	0
59	OHX	23SA	3187	7/7	0.99	0.06	61,66,83,110	0
59	OHX	23SA	3188	7/7	0.99	0.06	58,67,76,91	0
59	OHX	23SA	3189	7/7	0.99	0.07	60,72,78,115	0
59	OHX	23SA	3190	7/7	0.99	0.06	79,85,92,109	0
58	MG	16SB	2335	1/1	0.99	0.07	74,74,74,74	0
59	OHX	23SA	3192	7/7	0.99	0.07	68,74,81,100	0
58	MG	23SA	3525	1/1	0.99	0.10	40,40,40,40	0
58	MG	23SA	3451	1/1	0.99	0.04	33,33,33,33	0
58	MG	16SB	2338	1/1	0.99	0.05	86,86,86,86	0
58	MG	23SB	3394	1/1	0.99	0.05	73,73,73,73	0
58	MG	23SA	3426	1/1	0.99	0.05	42,42,42,42	0
58	MG	23SA	3408	1/1	0.99	0.03	45,45,45,45	0
60	K	16SA	2390	1/1	0.99	0.10	67,67,67,67	0
60	K	23SA	3624	1/1	0.99	0.03	60,60,60,60	0
59	OHX	S14B	101	7/7	0.99	0.04	121,125,132,169	0
58	MG	16SB	2342	1/1	0.99	0.10	98,98,98,98	0
58	MG	23SA	3454	1/1	0.99	0.03	54,54,54,54	0
58	MG	23SA	3530	1/1	0.99	0.05	57,57,57,57	0
58	MG	16SA	2350	1/1	0.99	0.06	89,89,89,89	0
58	MG	16SB	2346	1/1	0.99	0.04	84,84,84,84	0
58	MG	23SB	3334	1/1	0.99	0.05	58,58,58,58	0
58	MG	23SA	3491	1/1	0.99	0.05	43,43,43,43	0
59	OHX	23SB	3001	7/7	0.99	0.10	59,64,68,112	0
59	OHX	23SB	3002	7/7	0.99	0.08	66,72,95,109	0
59	OHX	23SB	3004	7/7	0.99	0.04	64,70,79,95	0
59	OHX	23SB	3005	7/7	0.99	0.06	74,76,93,97	0
59	OHX	23SB	3006	7/7	0.99	0.06	70,76,84,116	0
59	OHX	23SB	3007	7/7	0.99	0.06	85,90,107,121	0

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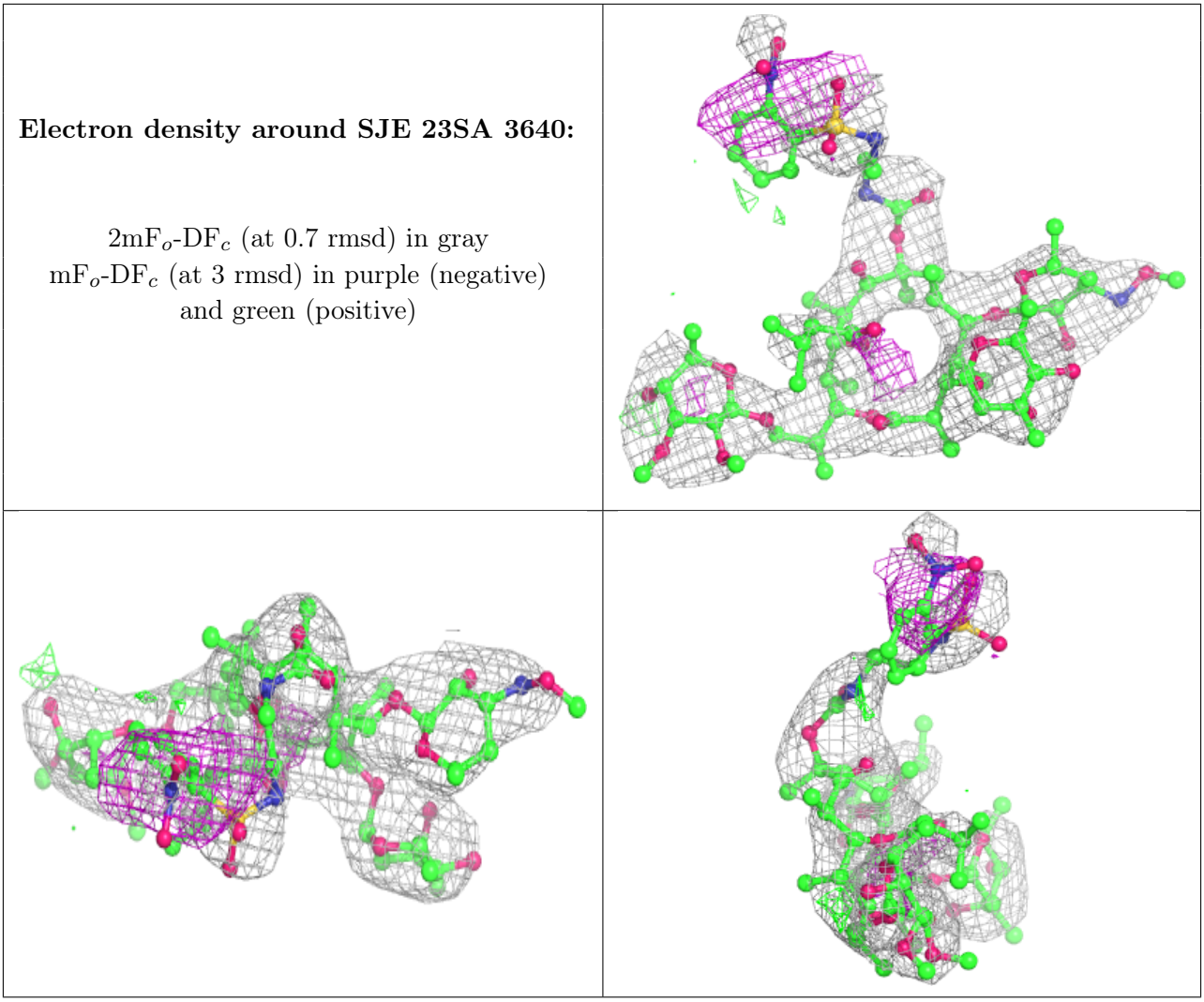
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	23SB	3405	1/1	0.99	0.08	53,53,53,53	0
59	OHX	23SB	3009	7/7	0.99	0.07	75,77,79,117	0
59	OHX	23SB	3010	7/7	0.99	0.08	79,84,90,126	0
59	OHX	23SB	3011	7/7	0.99	0.07	74,84,94,103	0
58	MG	23SA	3429	1/1	0.99	0.08	60,60,60,60	0
59	OHX	23SB	3013	7/7	0.99	0.05	86,91,94,110	0
59	OHX	23SB	3014	7/7	0.99	0.04	74,88,94,117	0
59	OHX	23SB	3015	7/7	0.99	0.07	103,106,113,117	0
58	MG	23SA	3534	1/1	0.99	0.10	55,55,55,55	0
59	OHX	23SB	3017	7/7	0.99	0.06	83,87,98,124	0
58	MG	23SB	3338	1/1	0.99	0.04	48,48,48,48	0
59	OHX	23SB	3019	7/7	0.99	0.06	68,75,83,123	0
59	OHX	L4A	302	7/7	0.99	0.17	37,47,53,146	0
58	MG	23SB	3339	1/1	0.99	0.04	47,47,47,47	0
58	MG	23SA	3410	1/1	0.99	0.03	57,57,57,57	0
58	MG	23SB	3380	1/1	1.00	0.03	39,39,39,39	0
58	MG	23SA	3403	1/1	1.00	0.03	33,33,33,33	0
59	OHX	23SB	3003	7/7	1.00	0.05	75,81,93,98	0
59	OHX	23SA	3184	7/7	1.00	0.03	57,62,65,92	0
58	MG	23SB	3400	1/1	1.00	0.04	84,84,84,84	0
58	MG	23SB	3342	1/1	1.00	0.09	46,46,46,46	0
59	OHX	L4B	301	7/7	1.00	0.09	48,52,62,94	0
58	MG	23SA	3404	1/1	1.00	0.06	45,45,45,45	0
58	MG	23SA	3464	1/1	1.00	0.02	37,37,37,37	0
58	MG	23SA	3455	1/1	1.00	0.11	51,51,51,51	0
58	MG	16SB	2340	1/1	1.00	0.09	64,64,64,64	0
58	MG	23SB	3354	1/1	1.00	0.03	77,77,77,77	0
58	MG	23SA	3466	1/1	1.00	0.06	57,57,57,57	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.

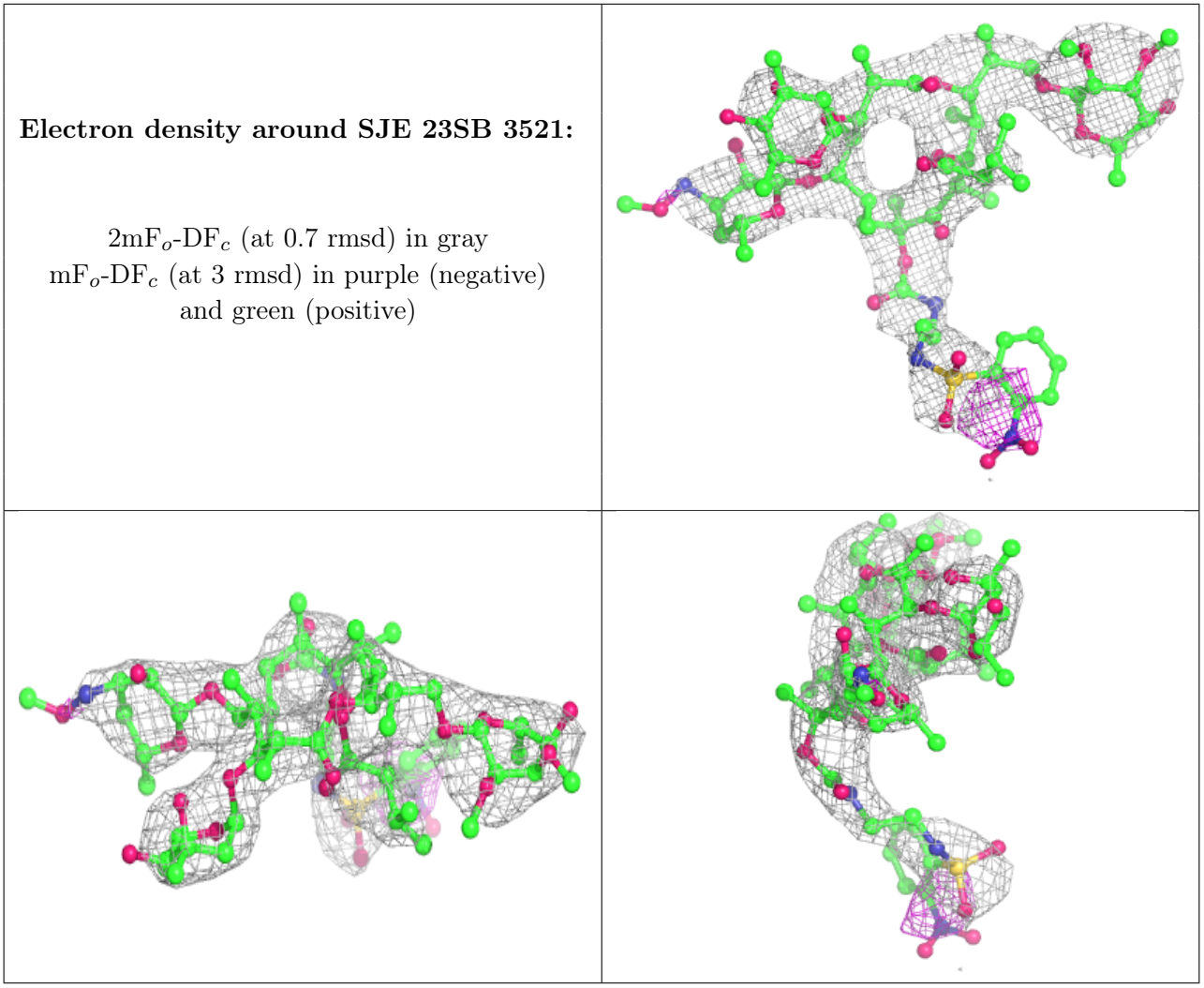
Electron density around SJE 23SA 3640:

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



Electron density around SJE 23SB 3521:

$2mF_o$-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.