Full wwPDB EM Validation Report ⓘ

Nov 4, 2023 – 10:25 PM EDT

PDB ID	:	8GLP
EMDB ID	:	EMD-40205
Title	:	mRNA decoding in human is kinetically and structurally distinct from bacteria (Consensus LSU focused refined structure)
Authors	:	Holm, M.; Natchiar, K.S.; Rundlet, E.J.; Myasnikov, A.G.; Watson, Z.L.; Altman, R.B.; Blanchard, S.C.
Deposited on	:	2023-03-22
Resolution	:	1.67 Å(reported)

This is a Full wwPDB EM 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/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

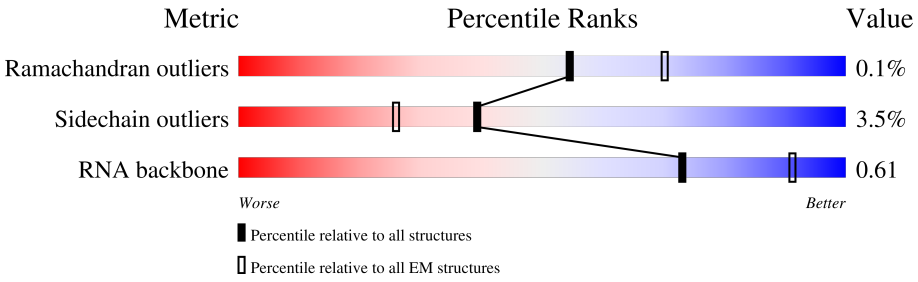
EMDB validation analysis	:	0.0.1.dev70
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 1.67 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)	EM structures (#Entries)
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	S2	1869	7% 72% 17% 11%
2	L8	156	85% 15%
3	L5	5069	58% 12% 30%
4	L7	120	93% 7%
5	SB	264	81% 16%
6	SA	295	7% 73% 25%
7	SD	243	32% 88% 5% 7%
8	SJ	194	12% 92% 5%

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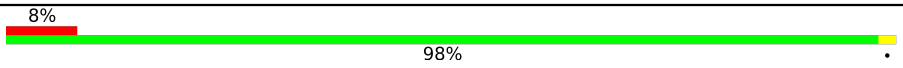
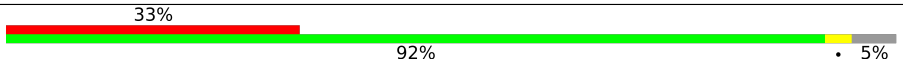
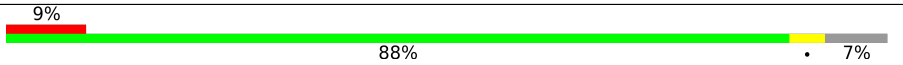
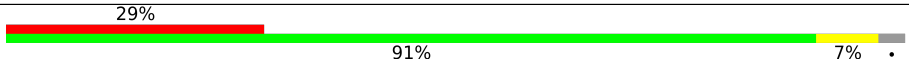
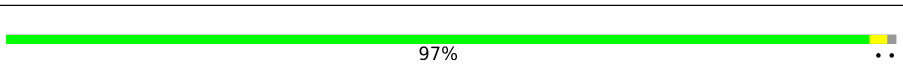
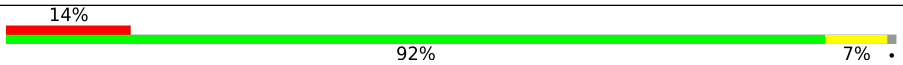
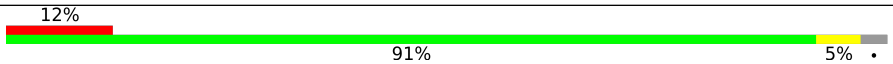
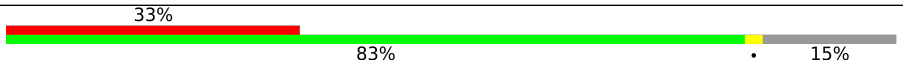
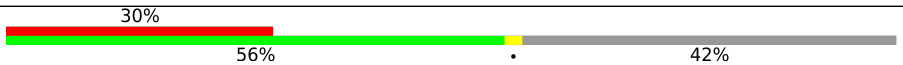
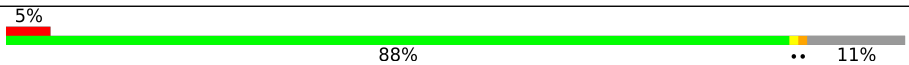
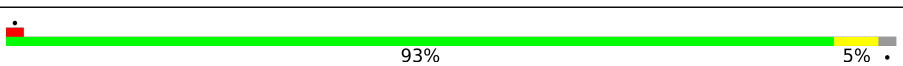
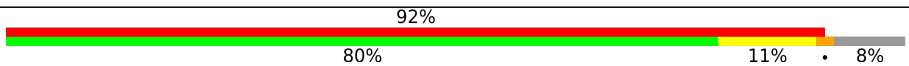
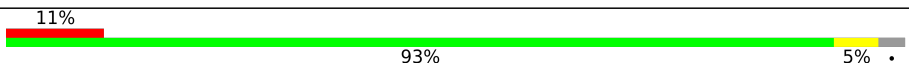
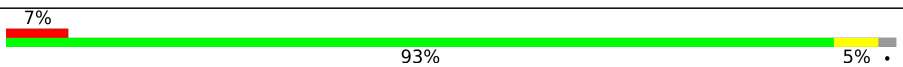
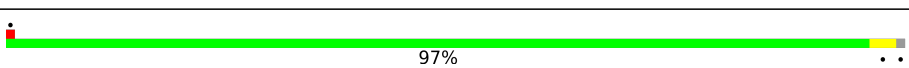
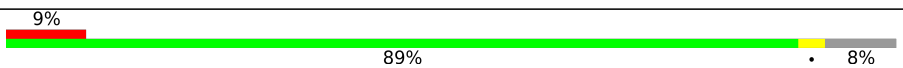
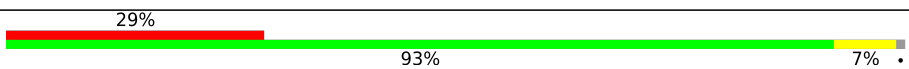
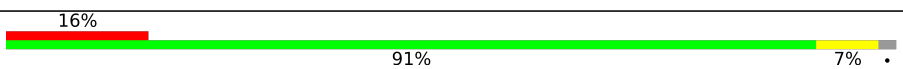
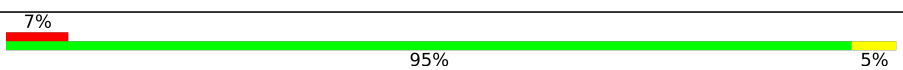
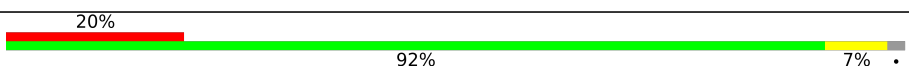
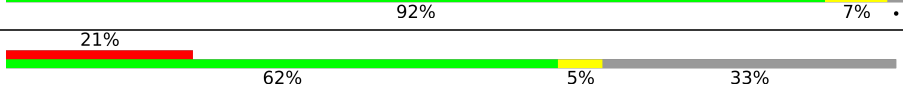
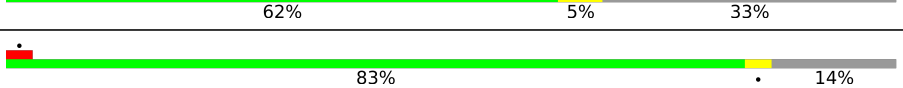
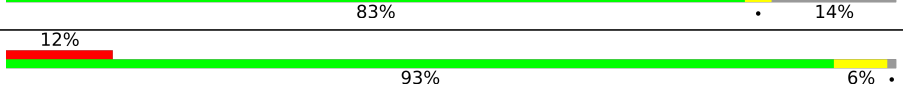
Mol	Chain	Length	Quality of chain
9	SE	263	
10	SC	293	
11	SG	249	
12	SF	204	
13	SH	194	
14	SW	130	
15	SI	208	
16	SQ	146	
17	SU	119	
18	SK	165	
19	SO	151	
20	SX	143	
21	SM	132	
22	SS	152	
23	Sd	56	
24	SN	151	
25	SL	158	
26	SR	135	
27	SP	145	
28	ST	145	
29	SV	83	
30	SY	133	
31	SZ	125	
32	Sa	115	
33	Sb	84	

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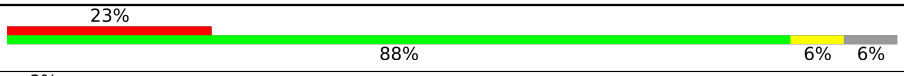
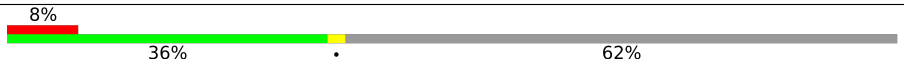
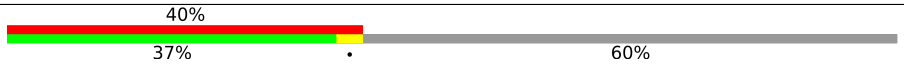
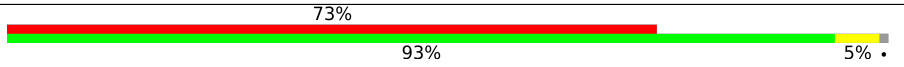
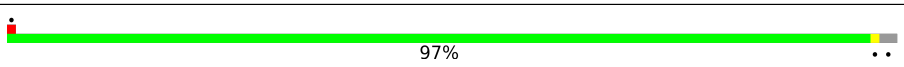
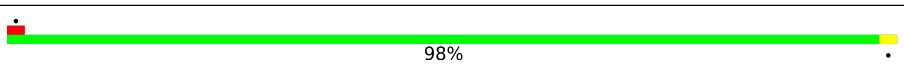
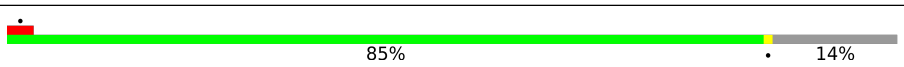
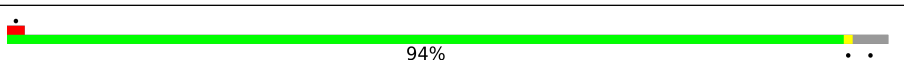
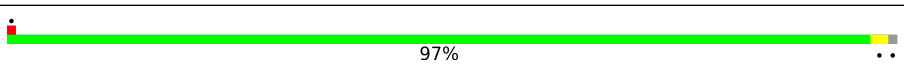
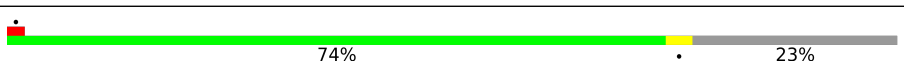
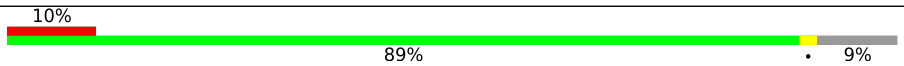
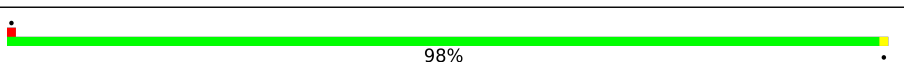
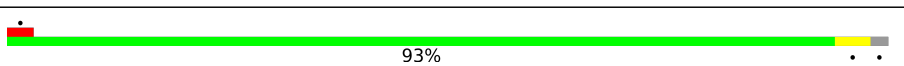
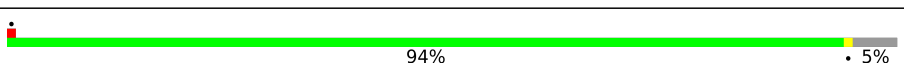
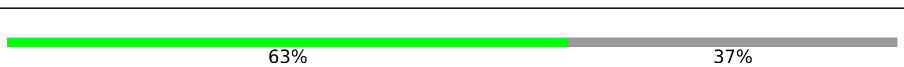
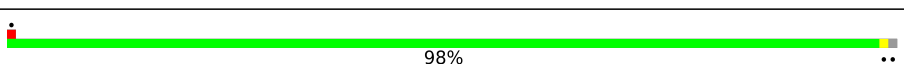
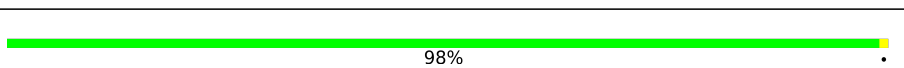
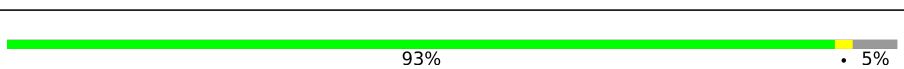
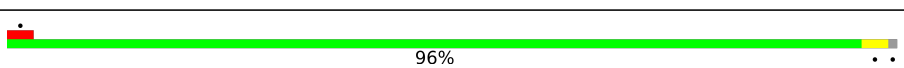
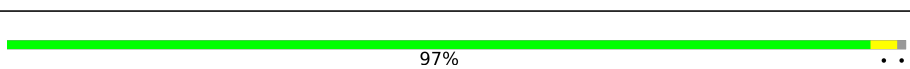
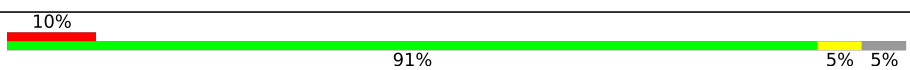
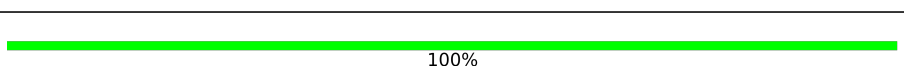
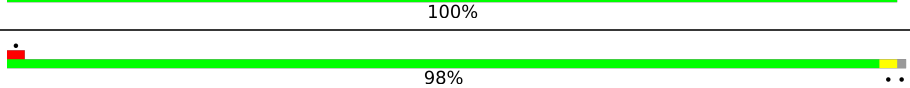
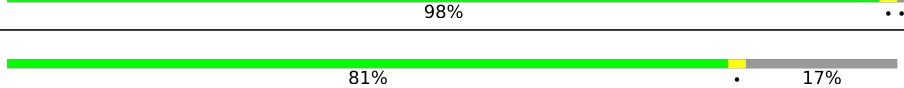
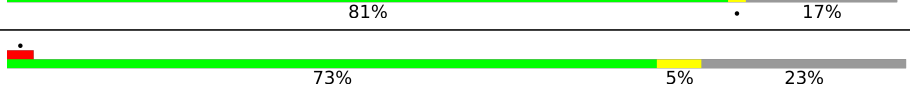
Mol	Chain	Length	Quality of chain
34	Sc	69	
35	Se	133	
36	Sf	156	
37	Sg	317	
38	LA	257	
39	LB	403	
40	LC	427	
41	LJ	178	
42	LH	192	
43	LE	288	
44	LG	266	
45	LO	203	
46	LL	211	
47	LV	140	
48	LM	215	
49	La	148	
50	LN	204	
51	LI	214	
52	LD	297	
53	LQ	188	
54	LR	196	
55	LS	176	
56	LT	160	
57	LP	184	
58	LU	128	

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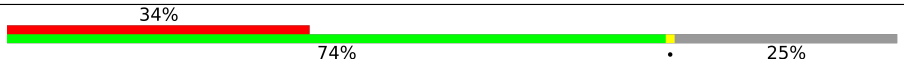
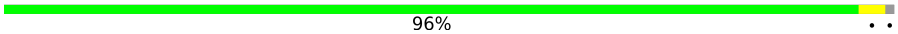
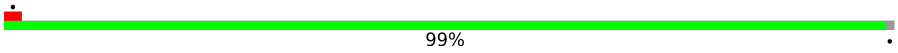
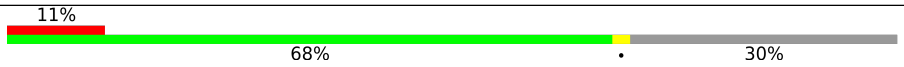
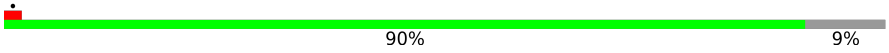
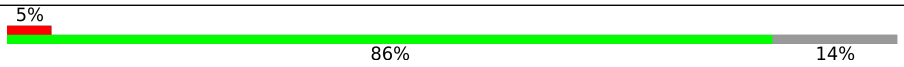
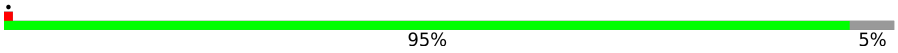
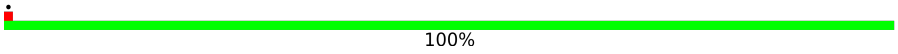
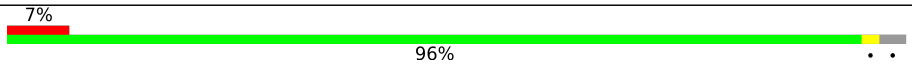
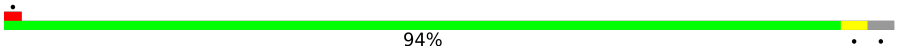
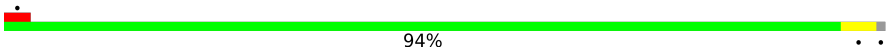
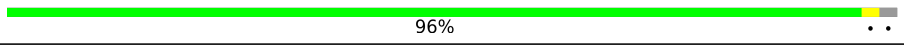
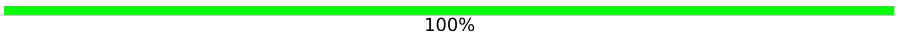
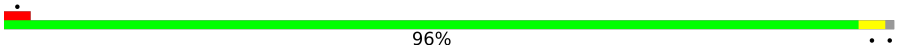
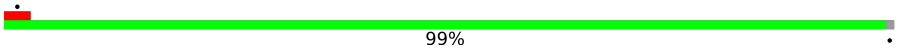
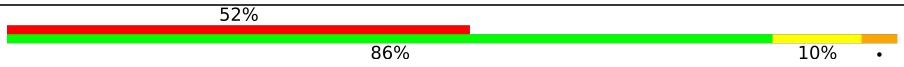
Mol	Chain	Length	Quality of chain
59	LX	156	
60	LY	145	
61	LW	157	
62	LZ	136	
63	Lr	137	
64	Lh	123	
65	Lb	159	
66	LF	248	
67	Lc	115	
68	Ld	125	
69	Le	135	
70	Lf	110	
71	Lg	117	
72	Li	105	
73	Lj	97	
74	Lk	70	
75	Ll	51	
76	Lm	128	
77	Ln	25	
78	Lo	106	
79	Lp	92	
80	mR	60	
81	Pt	77	

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
6	SAC	SA	2	-	X	-	-

2 Entry composition

There are 91 unique types of molecules in this entry. The entry contains 220877 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 18S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	S2	1672	35736	15981	6403	11681	1671	0	0

- Molecule 2 is a RNA chain called 5.8S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	L8	156	3316	1482	585	1094	155	0	0

- Molecule 3 is a RNA chain called 28S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	L5	3546	76116	33935	13923	24712	3546	1	0

- Molecule 4 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	L7	120	2558	1141	456	842	119	0	0

- Molecule 5 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	SB	223	1806	1145	325	322	14	0	0

- Molecule 6 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	SA	222	1750	1111	306	325	8	0	0

- Molecule 7 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	SD	226	Total	C	N	O	S	0	0
			1756	1119	315	314	8		

- Molecule 8 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	SJ	185	Total	C	N	O	S	0	0
			1525	969	306	248	2		

- Molecule 9 is a protein called 40S ribosomal protein S4, X isoform.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	SE	262	Total	C	N	O	S	0	0
			2076	1324	386	358	8		

- Molecule 10 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	SC	222	Total	C	N	O	S	0	0
			1725	1115	298	302	10		

- Molecule 11 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	SG	237	Total	C	N	O	S	0	0
			1923	1200	387	329	7		

- Molecule 12 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	SF	189	Total	C	N	O	S	0	0
			1494	934	284	269	7		

- Molecule 13 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	SH	189	Total	C	N	O	S	0	0
			1517	966	279	271	1		

- Molecule 14 is a protein called 40S ribosomal protein S15a.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	SW	129	Total	C	N	O	S	0	0
			1034	659	193	176	6		

- Molecule 15 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	SI	206	Total	C	N	O	S	0	0
			1686	1058	332	291	5		

- Molecule 16 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	SQ	141	Total	C	N	O	S	0	0
			1123	715	212	193	3		

- Molecule 17 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	SU	101	Total	C	N	O	S	0	0
			803	504	153	142	4		

- Molecule 18 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	SK	96	Total	C	N	O	S	0	0
			810	530	143	131	6		

- Molecule 19 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	SO	135	Total	C	N	O	S	0	0
			1009	618	198	187	6		

- Molecule 20 is a protein called 40S ribosomal protein S23 (uS12).

Mol	Chain	Residues	Atoms					AltConf	Trace
20	SX	140	Total	C	N	O	S	0	0
			1088	687	215	183	3		

- Molecule 21 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	SM	122	Total	C	N	O	S	0	0
			950	596	168	177	9		

- Molecule 22 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	SS	148	Total	C	N	O	S	0	0
			1214	761	245	207	1		

- Molecule 23 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	Sd	55	Total	C	N	O	S	0	0
			458	286	94	73	5		

- Molecule 24 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	SN	150	Total	C	N	O	S	1	0
			1214	778	231	204	1		

- Molecule 25 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	SL	146	Total	C	N	O	S	0	0
			1200	766	226	202	6		

- Molecule 26 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	SR	134	Total	C	N	O	S	0	0
			1082	680	201	197	4		

- Molecule 27 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	SP	131	Total	C	N	O	S	0	0
			1078	684	204	183	7		

- Molecule 28 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	ST	142	Total	C	N	O	S	1	0
			1121	707	212	199	3		

- Molecule 29 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	SV	83	Total	C	N	O	S	0	0
			639	395	117	122	5		

- Molecule 30 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	SY	131	Total	C	N	O	S	0	0
			1065	673	209	178	5		

- Molecule 31 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	SZ	84	Total	C	N	O	S	0	0
			674	433	126	114	1		

- Molecule 32 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Sa	99	Total	C	N	O	S	1	0
			800	497	168	130	5		

- Molecule 33 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Sb	83	Total	C	N	O	S	0	0
			651	408	121	115	7		

- Molecule 34 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Sc	65	Total	C	N	O	S	0	0
			512	311	103	96	2		

- Molecule 35 is a protein called FAU ubiquitin-like and ribosomal protein S30.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Se	50	Total	C	N	O	S	0	0
			394	241	88	64	1		

- Molecule 36 is a protein called Ubiquitin-40S ribosomal protein S27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Sf	63	Total	C	N	O	S	0	0
			515	324	98	86	7		

- Molecule 37 is a protein called Receptor of activated protein C kinase 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Sg	313	Total	C	N	O	S	0	0
			2436	1535	424	465	12		

- Molecule 38 is a protein called 60S ribosomal protein L8 (uL2).

Mol	Chain	Residues	Atoms					AltConf	Trace
38	LA	251	Total	C	N	O	S	1	0
			1930	1209	396	319	6		

- Molecule 39 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	LB	402	Total	C	N	O	S	0	0
			3239	2061	608	556	14		

- Molecule 40 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	LC	366	Total	C	N	O	S	0	0
			2914	1832	581	487	14		

- Molecule 41 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	LJ	170	Total	C	N	O	S	0	0
			1362	861	254	241	6		

- Molecule 42 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	LH	190	Total	C	N	O	S	0	0
			1518	956	284	272	6		

- Molecule 43 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	LE	223	Total	C	N	O	S	0	0
			1786	1150	339	293	4		

- Molecule 44 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	LG	241	Total	C	N	O	S	0	0
			1926	1228	371	323	4		

- Molecule 45 is a protein called 60S ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	LO	202	Total	C	N	O	S	0	0
			1654	1066	322	261	5		

- Molecule 46 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	LL	206	Total	C	N	O	S	1	0
			1672	1046	348	274	4		

- Molecule 47 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	LV	133	Total	C	N	O	S	0	0
			988	623	186	174	5		

- Molecule 48 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	LM	136	Total	C	N	O	S	0	0
			1120	719	215	179	7		

- Molecule 49 is a protein called 60S ribosomal protein L27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	La	147	Total	C	N	O	S	0	0
			1162	736	237	186	3		

- Molecule 50 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	LN	203	Total	C	N	O	S	0	0
			1700	1072	359	265	4		

- Molecule 51 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	LI	203	Total	C	N	O	S	0	0
			1645	1045	317	270	13		

- Molecule 52 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	LD	294	Total	C	N	O	S	0	0
			2391	1513	436	428	14		

- Molecule 53 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	LQ	187	Total	C	N	O	S	0	0
			1512	944	314	249	5		

- Molecule 54 is a protein called 60S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	LR	187	Total	C	N	O	S	0	0
			1566	971	336	250	9		

- Molecule 55 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	LS	176	Total	C	N	O	S	0	0
			1460	930	284	235	11		

- Molecule 56 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	LT	159	Total	C	N	O	S	2	0
			1311	833	256	216	6		

- Molecule 57 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	LP	153	Total	C	N	O	S	1	0
			1249	781	243	216	9		

- Molecule 58 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	LU	99	Total	C	N	O	S	0	0
			808	518	141	147	2		

- Molecule 59 is a protein called 60S ribosomal protein L23a.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	LX	118	Total	C	N	O	S	0	0
			966	618	181	166	1		

- Molecule 60 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	LY	134	Total	C	N	O	S	0	0
			1115	700	226	186	3		

- Molecule 61 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	LW	118	Total	C	N	O	S	0	0
			950	595	192	159	4		

- Molecule 62 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	LZ	135	Total	C	N	O	S	1	0
			1115	719	211	182	3		

- Molecule 63 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Lr	125	Total	C	N	O	S	1	0
			1011	629	208	169	5		

- Molecule 64 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Lh	122	Total	C	N	O	S	0	0
			1014	641	205	167	1		

- Molecule 65 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	Lb	111	Total	C	N	O	S	0	0
			898	560	195	139	4		

- Molecule 66 is a protein called 60S ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	LF	225	Total	C	N	O	S	2	0
			1885	1212	364	300	9		

- Molecule 67 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Lc	99	Total	C	N	O	S	0	0
			770	488	136	140	6		

- Molecule 68 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Ld	107	Total	C	N	O	S	0	0
			888	560	171	155	2		

- Molecule 69 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	Le	128	Total	C	N	O	S	1	0
			1061	672	219	165	5		

- Molecule 70 is a protein called 60S ribosomal protein L35a.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Lf	110	Total	C	N	O	S	0	0
			883	560	175	144	4		

- Molecule 71 is a protein called 60S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	Lg	114	Total	C	N	O	S	0	0
			906	566	187	147	6		

- Molecule 72 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	Li	102	Total	C	N	O	S	0	0
			832	521	177	129	5		

- Molecule 73 is a protein called 60S ribosomal protein L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	Lj	86	Total	C	N	O	S	1	0
			712	439	157	111	5		

- Molecule 74 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	Lk	69	Total	C	N	O	S	0	0
			568	366	103	98	1		

- Molecule 75 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	Ll	50	Total	C	N	O	S	0	0
			443	281	98	63	1		

- Molecule 76 is a protein called 60S ribosomal protein L40 (eL40).

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Lm	52	Total	C	N	O	S	1	0
			436	272	91	67	6		

- Molecule 77 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Ln	25	Total	C	N	O	S	0	0
			239	145	64	27	3		

- Molecule 78 is a protein called 60S ribosomal protein L36a.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Lo	105	Total	C	N	O	S	1	0
			870	548	177	139	6		

- Molecule 79 is a protein called 60S ribosomal protein L37a.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	Lp	91	Total	C	N	O	S	1	0
			715	450	139	119	7		

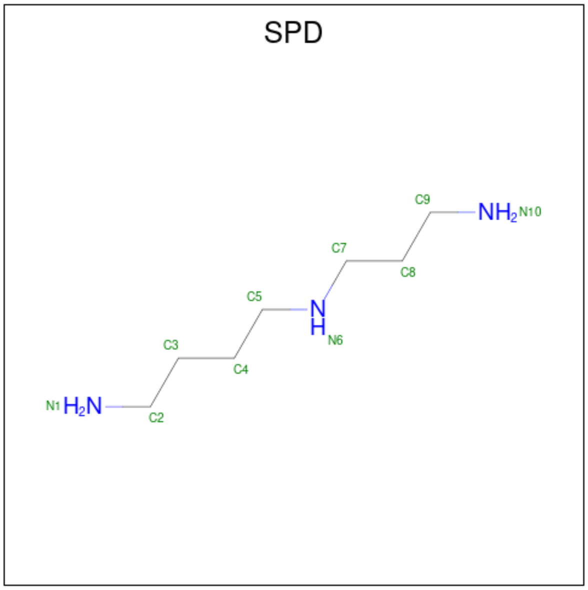
- Molecule 80 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	mR	8	Total	C	N	O	P	0	0
			172	77	32	55	8		

- Molecule 81 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
81	Pt	77	Total	C	N	O	P	S	0	0
			1645	734	298	535	77	1		

- Molecule 82 is SPERMIDINE (three-letter code: SPD) (formula: $C_7H_{19}N_3$).



Mol	Chain	Residues	Atoms	AltConf
82	S2	1	Total C N 10 7 3	0
82	S2	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0
82	L5	1	Total C N 10 7 3	0

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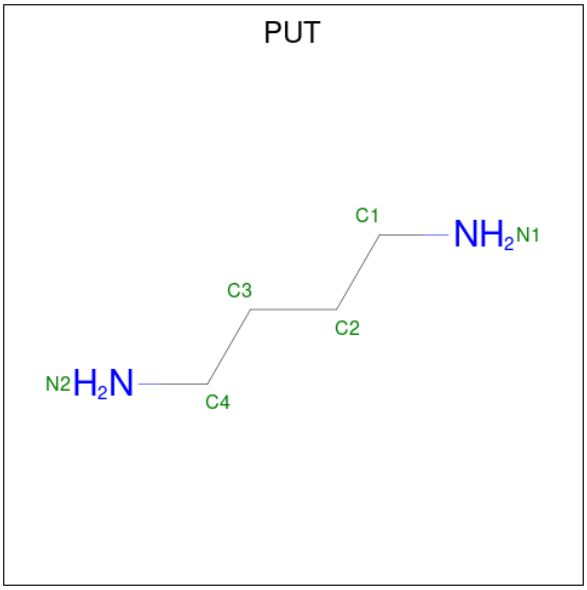
Mol	Chain	Residues	Atoms	AltConf
82	L5	1	Total C N 10 7 3	0

- Molecule 83 is 1,4-DIAMINOBUTANE (three-letter code: PUT) (formula: $C_4H_{12}N_2$).



Mol	Chain	Residues	Atoms	AltConf
83	S2	1	Total C N 6 4 2	0
83	L5	1	Total C N 6 4 2	0
83	L5	1	Total C N 6 4 2	0
83	L5	1	Total C N 6 4 2	0
83	L5	1	Total C N 6 4 2	0
83	L5	1	Total C N 6 4 2	0
83	L5	1	Total C N 6 4 2	0
83	L5	1	Total C N 6 4 2	0
83	L5	1	Total C N 6 4 2	0

- Molecule 84 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	AltConf
84	S2	12	Total K 12 12	0
84	L8	4	Total K 4 4	0
84	L5	117	Total K 117 117	0
84	L7	4	Total K 4 4	0
84	SO	1	Total K 1 1	0
84	SL	1	Total K 1 1	0
84	Sa	1	Total K 1 1	0
84	LA	3	Total K 3 3	0
84	LH	1	Total K 1 1	0
84	LL	1	Total K 1 1	0
84	LN	1	Total K 1 1	0
84	LI	1	Total K 1 1	0
84	LQ	1	Total K 1 1	0
84	Lb	1	Total K 1 1	0
84	Le	1	Total K 1 1	0
84	Lf	1	Total K 1 1	0
84	Ll	1	Total K 1 1	0

- Molecule 85 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	AltConf
85	S2	137	Total Mg 137 137	0
85	L8	16	Total Mg 16 16	0
85	L5	463	Total Mg 463 463	0

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Mol	Chain	Residues	Atoms	AltConf
85	L7	15	Total Mg 15 15	0
85	SG	1	Total Mg 1 1	0
85	SX	1	Total Mg 1 1	0
85	SS	2	Total Mg 2 2	0
85	Sd	1	Total Mg 1 1	0
85	SN	1	Total Mg 1 1	0
85	ST	1	Total Mg 1 1	0
85	LB	1	Total Mg 1 1	0
85	LC	1	Total Mg 1 1	0
85	LH	1	Total Mg 1 1	0
85	LG	1	Total Mg 1 1	0
85	LO	2	Total Mg 2 2	0
85	LL	1	Total Mg 1 1	0
85	LV	1	Total Mg 1 1	0
85	La	1	Total Mg 1 1	0
85	LN	3	Total Mg 3 3	0
85	LD	1	Total Mg 1 1	0
85	LQ	2	Total Mg 2 2	0
85	LR	1	Total Mg 1 1	0
85	LS	1	Total Mg 1 1	0
85	LP	2	Total Mg 2 2	0

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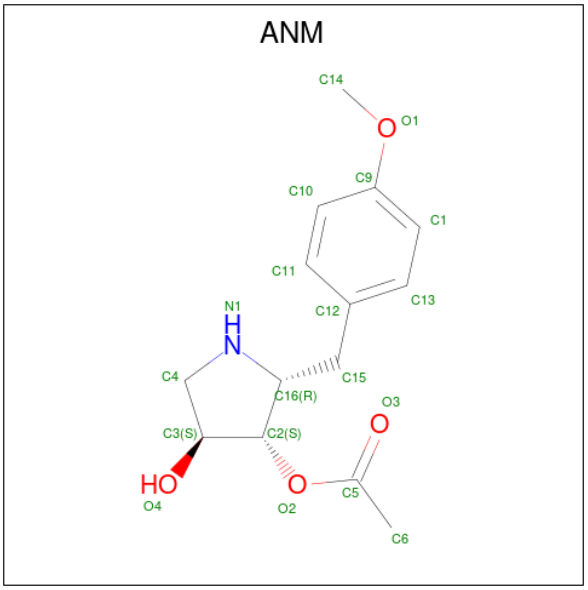
Mol	Chain	Residues	Atoms	AltConf
85	Lr	3	Total Mg 3 3	0
85	LF	1	Total Mg 1 1	0
85	Lc	1	Total Mg 1 1	0
85	Lf	1	Total Mg 1 1	0
85	Lg	1	Total Mg 1 1	0
85	Lj	2	Total Mg 2 2	0
85	Lo	1	Total Mg 1 1	0
85	Lp	2	Total Mg 2 2	0
85	Pt	2	Total Mg 2 2	0

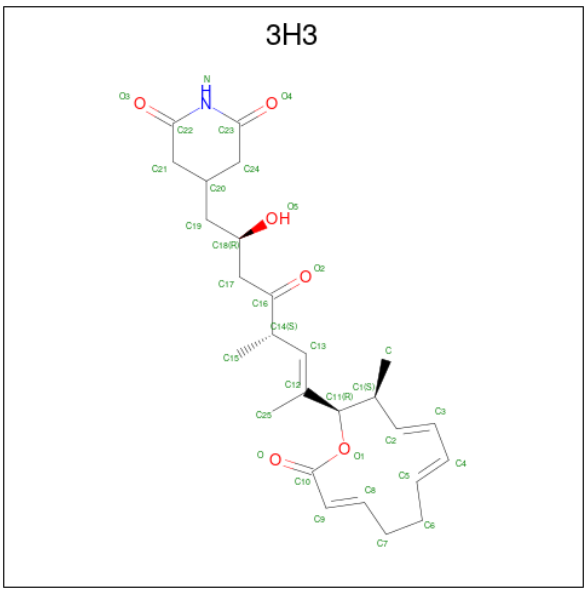
- Molecule 86 is ANISOMYCIN (three-letter code: ANM) (formula: $C_{14}H_{19}NO_4$).



Mol	Chain	Residues	Atoms	AltConf
86	L5	1	Total C N O 19 14 1 4	0

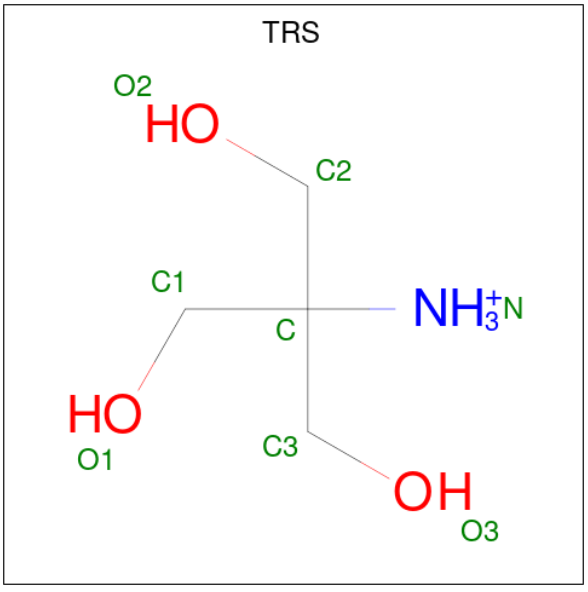
- Molecule 87 is 4-{(2R,5S,6E)-2-hydroxy-5-methyl-7-[(2R,3S,4E,6Z,10E)-3-methyl-12-oxoo xacyclododeca-4,6,10-trien-2-yl]-4-oxooct-6-en-1-yl}piperidine-2,6-dione (three-letter code:

3H3) (formula: $C_{26}H_{35}NO_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
87	L5	1	33	26	1	6	0

- Molecule 88 is 2-AMINO-2-HYDROXYMETHYL-PROPANE-1,3-DIOL (three-letter code: TRS) (formula: $C_4H_{12}NO_3$).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
88	L5	1	8	4	1	3	0

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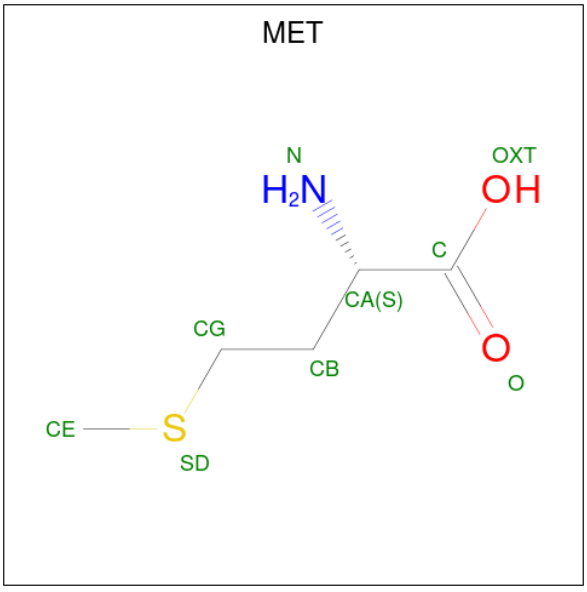
Mol	Chain	Residues	Atoms	AltConf
88	L5	1	Total C N O 8 4 1 3	0

- Molecule 89 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	AltConf
89	Sd	1	Total Zn 1 1	0
89	Sa	1	Total Zn 1 1	0
89	Sf	1	Total Zn 1 1	0
89	Lg	1	Total Zn 1 1	0
89	Lj	1	Total Zn 1 1	0
89	Lm	1	Total Zn 1 1	0
89	Lo	1	Total Zn 1 1	0
89	Lp	1	Total Zn 1 1	0

- Molecule 90 is METHIONINE (three-letter code: MET) (formula: $C_5H_{11}NO_2S$).



Mol	Chain	Residues	Atoms					AltConf
90	Pt	1	Total	C	N	O	S	0
			8	5	1	1	1	

- Molecule 91 is water.

Mol	Chain	Residues	Atoms		AltConf
91	S2	266	Total	O	0
			266	266	
91	L8	189	Total	O	0
			189	189	
91	L5	5661	Total	O	0
			5661	5661	
91	L7	133	Total	O	0
			133	133	
91	SA	1	Total	O	0
			1	1	
91	SE	1	Total	O	0
			1	1	
91	SF	1	Total	O	0
			1	1	
91	SO	3	Total	O	0
			3	3	
91	SN	3	Total	O	0
			3	3	
91	SL	2	Total	O	0
			2	2	
91	Sa	4	Total	O	0
			4	4	
91	Sb	1	Total	O	0
			1	1	
91	LA	93	Total	O	0
			93	93	
91	LB	113	Total	O	0
			113	113	
91	LC	137	Total	O	0
			137	137	
91	LJ	4	Total	O	0
			4	4	
91	LH	14	Total	O	0
			14	14	
91	LE	28	Total	O	0
			28	28	
91	LG	28	Total	O	0
			28	28	

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Mol	Chain	Residues	Atoms	AltConf
91	LO	69	Total O 69 69	0
91	LL	62	Total O 62 62	0
91	LV	25	Total O 25 25	0
91	LM	10	Total O 10 10	0
91	La	71	Total O 71 71	0
91	LN	112	Total O 112 112	0
91	LI	33	Total O 33 33	0
91	LD	37	Total O 37 37	0
91	LQ	81	Total O 81 81	0
91	LR	34	Total O 34 34	0
91	LS	51	Total O 51 51	0
91	LT	58	Total O 58 58	0
91	LP	44	Total O 44 44	0
91	LU	1	Total O 1 1	0
91	LX	15	Total O 15 15	0
91	LY	23	Total O 23 23	0
91	LW	8	Total O 8 8	0
91	LZ	7	Total O 7 7	0
91	Lr	53	Total O 53 53	0
91	Lh	10	Total O 10 10	0
91	Lb	21	Total O 21 21	0

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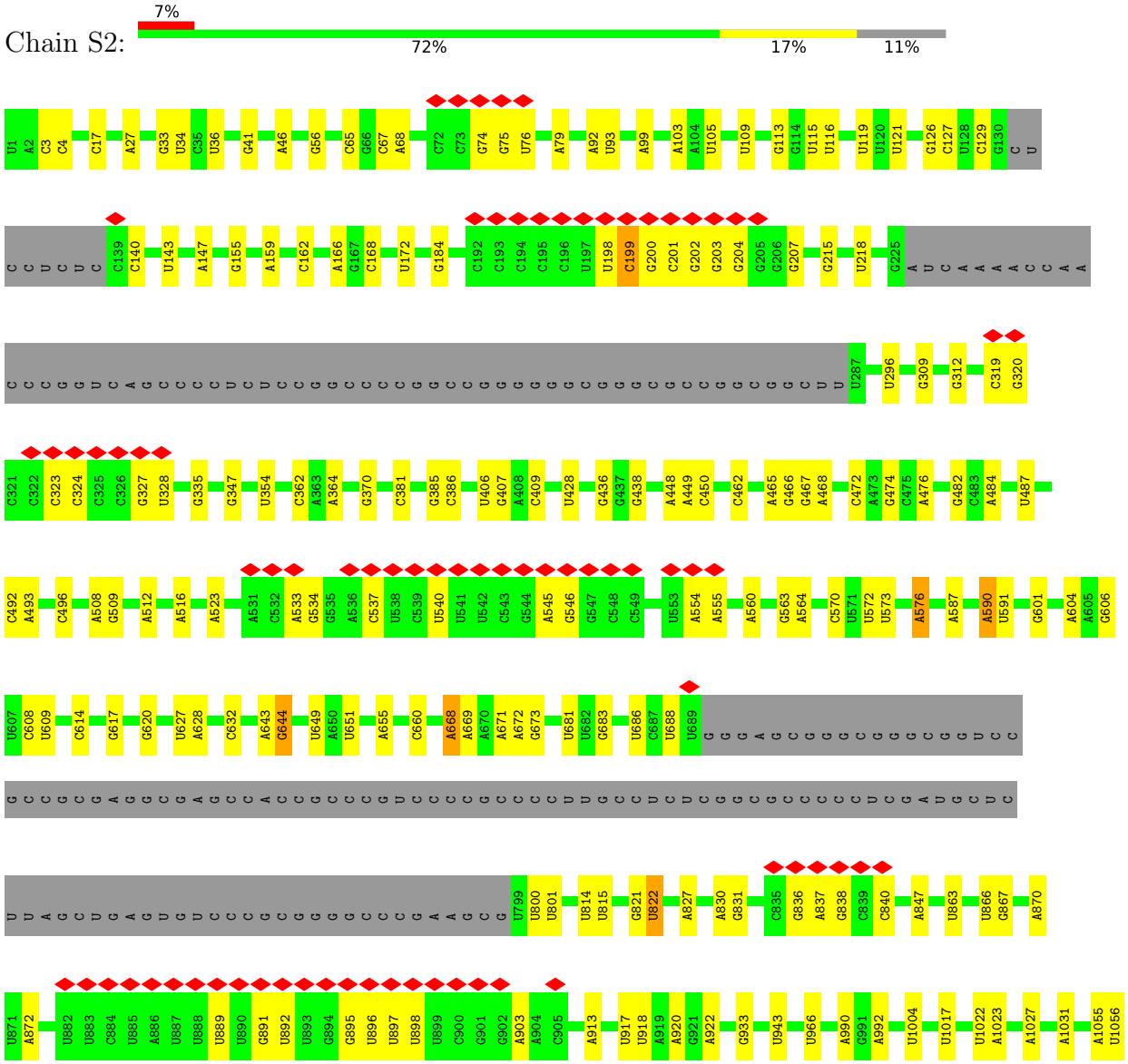
Mol	Chain	Residues	Atoms	AltConf
91	LF	77	Total O 77 77	0
91	Lc	5	Total O 5 5	0
91	Ld	20	Total O 20 20	0
91	Le	71	Total O 71 71	0
91	Lf	45	Total O 45 45	0
91	Lg	39	Total O 39 39	0
91	Li	15	Total O 15 15	0
91	Lj	36	Total O 36 36	0
91	Lk	2	Total O 2 2	0
91	Ll	14	Total O 14 14	0
91	Lm	8	Total O 8 8	0
91	Ln	4	Total O 4 4	0
91	Lo	37	Total O 37 37	0
91	Lp	24	Total O 24 24	0
91	Pt	1	Total O 1 1	0

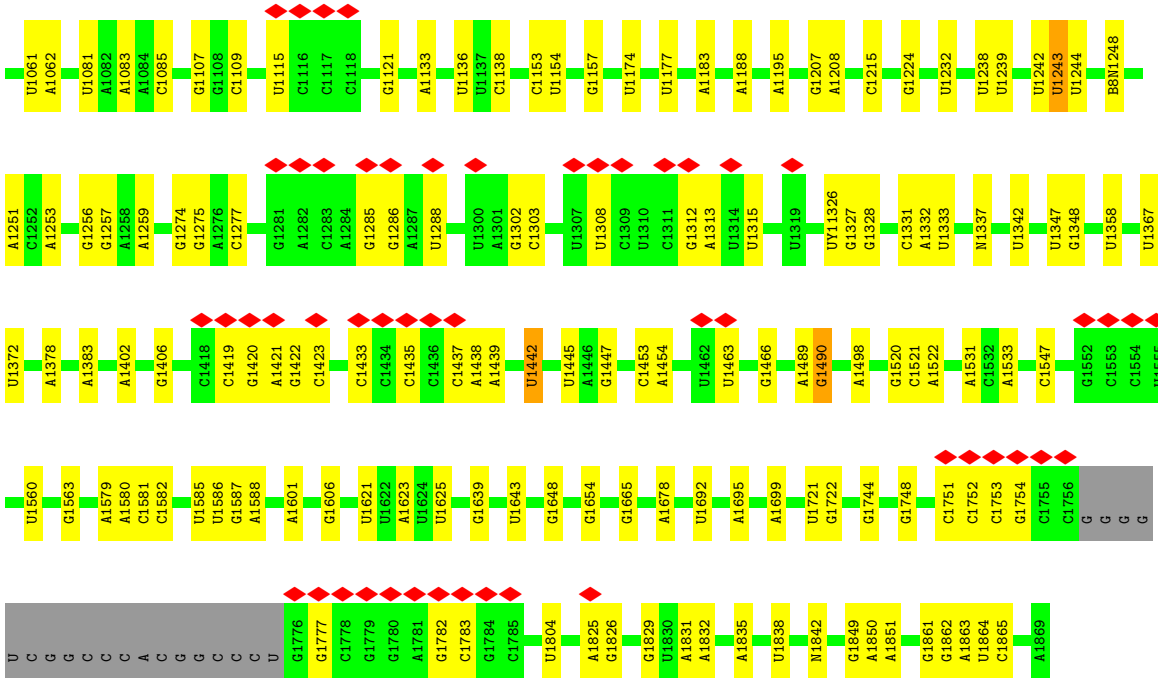
3 Residue-property plots (i)

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 atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: 18S rRNA

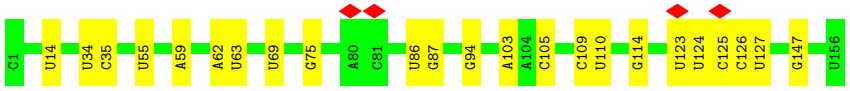
Chain S2:





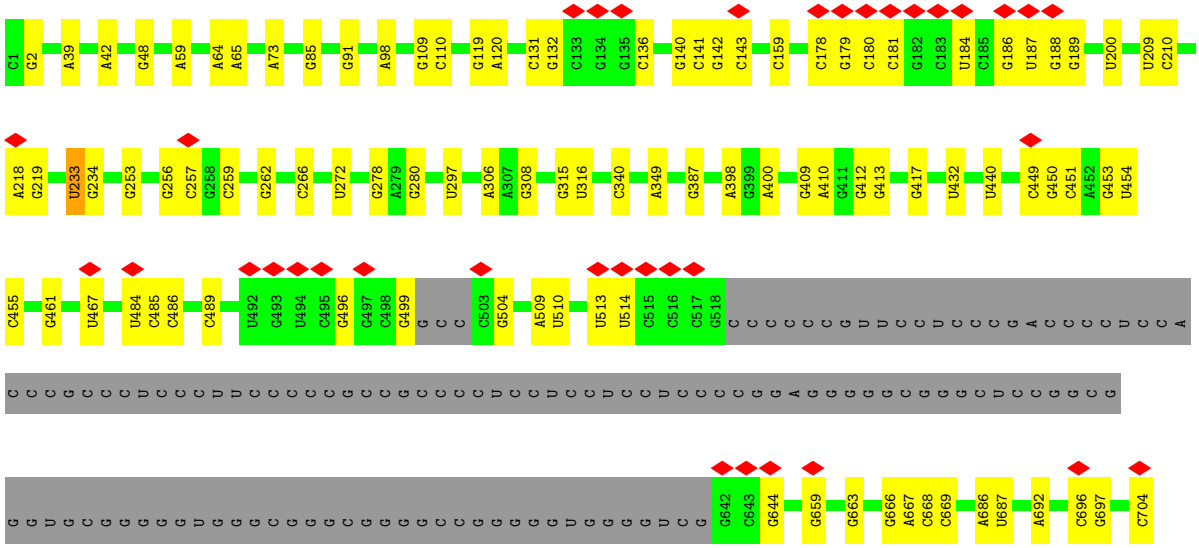
• Molecule 2: 5.8S rRNA

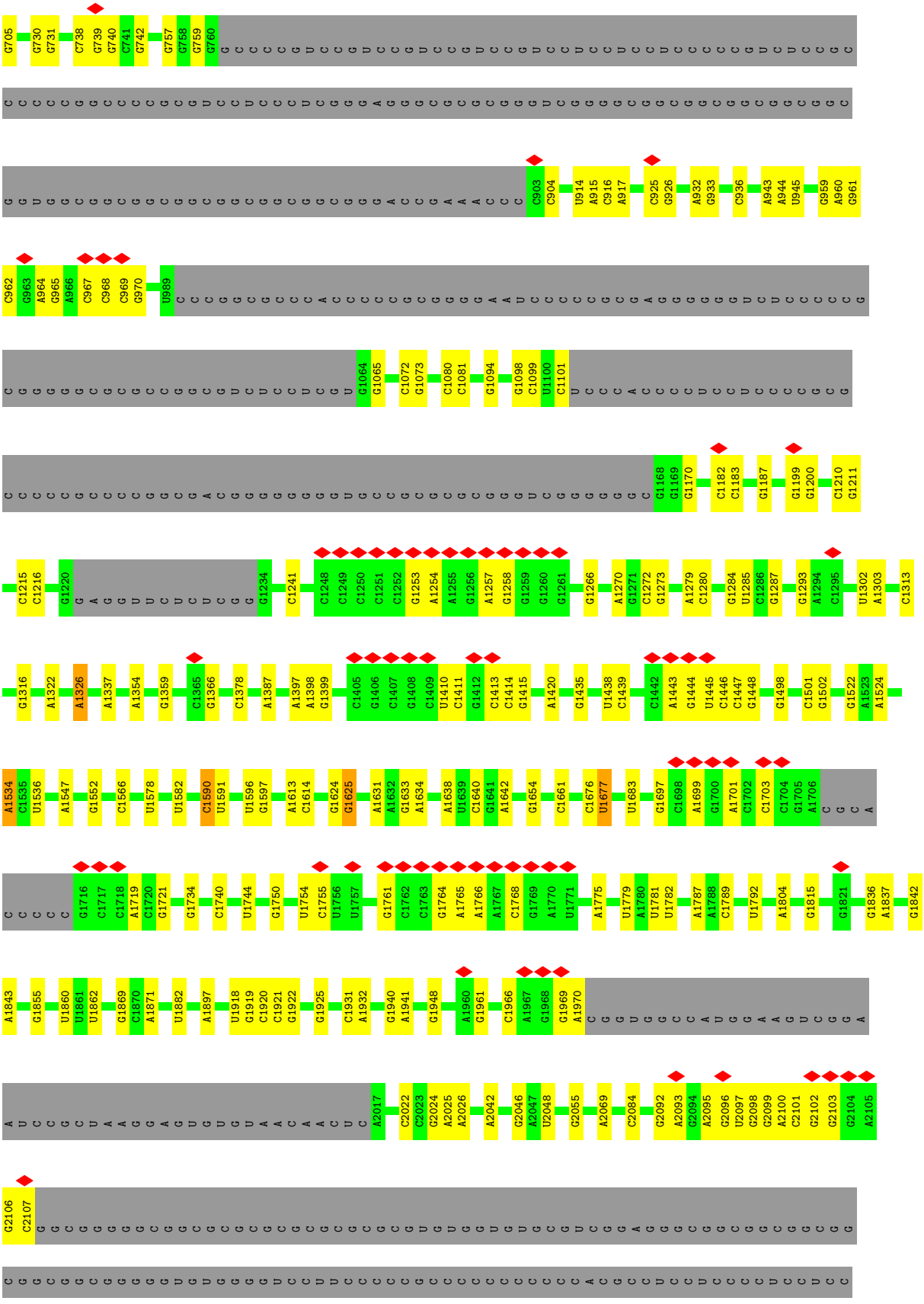
Chain L8:

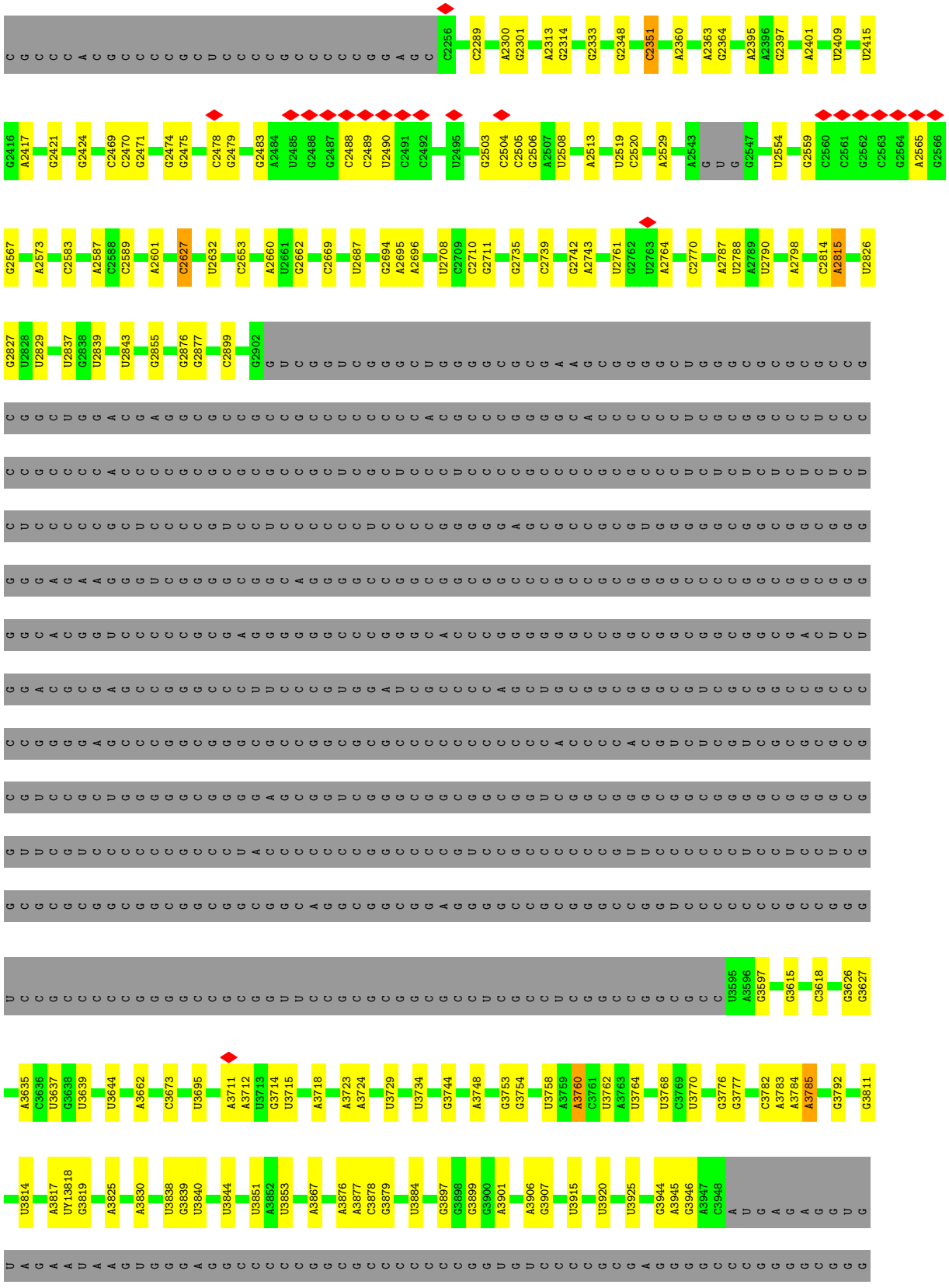


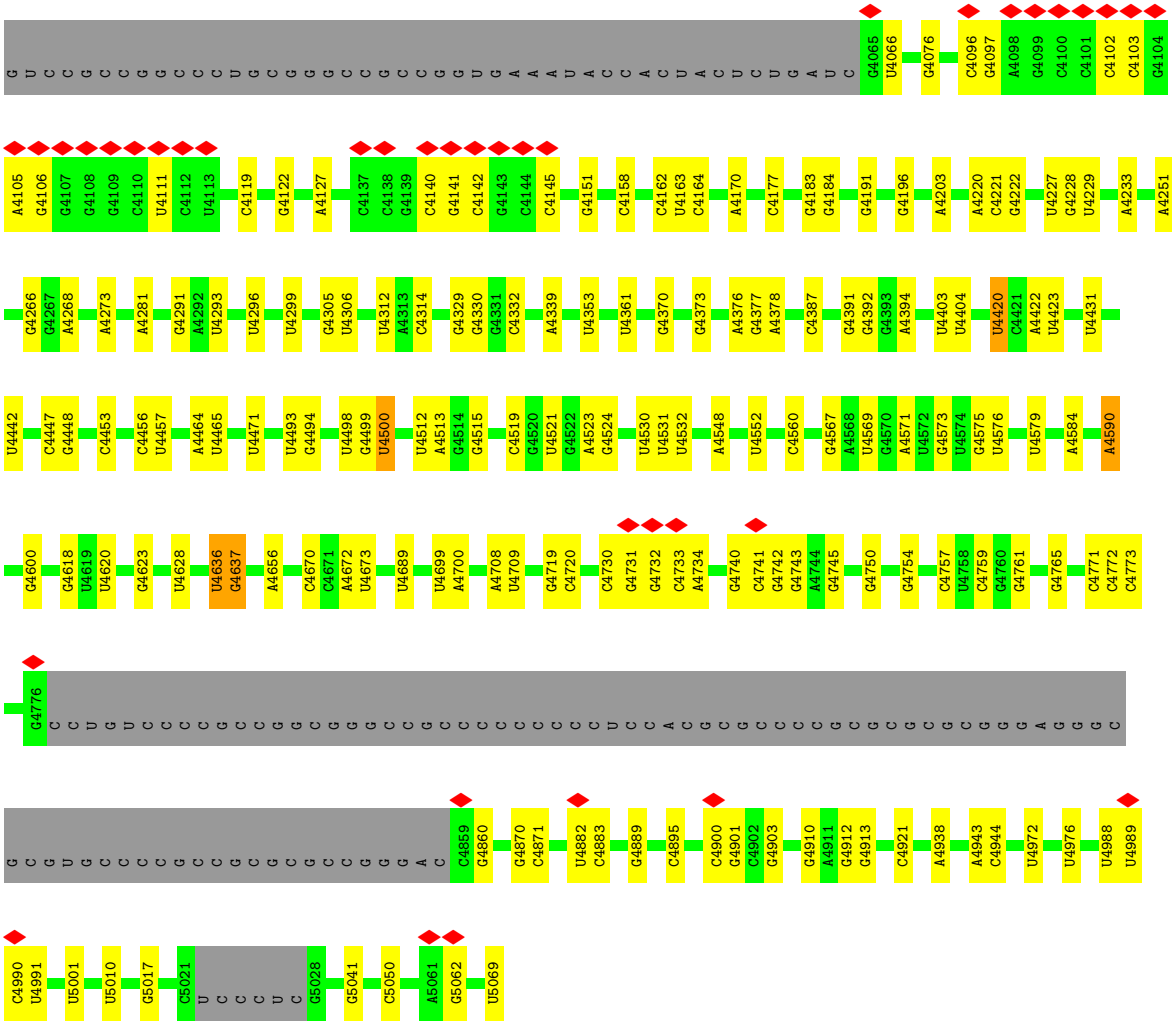
• Molecule 3: 28S rRNA

Chain L5:



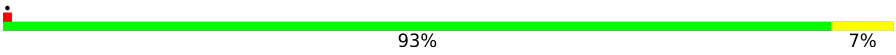


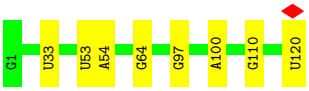




• Molecule 4: 5S rRNA

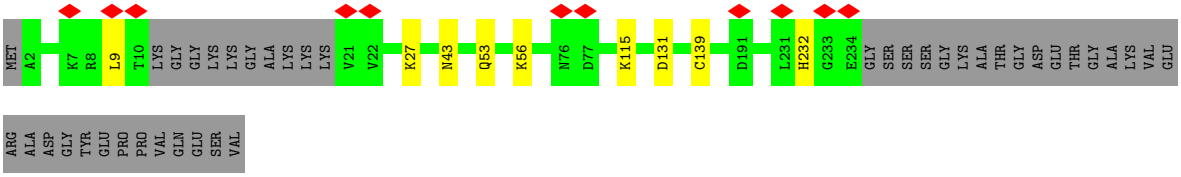
Chain L7:





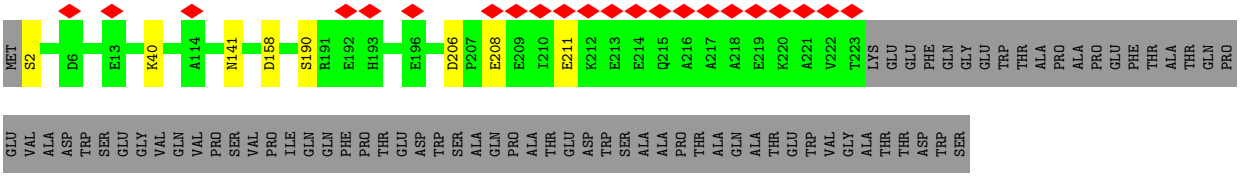
• Molecule 5: 40S ribosomal protein S3a

Chain SB:

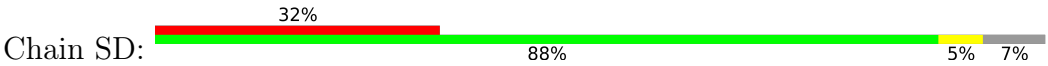


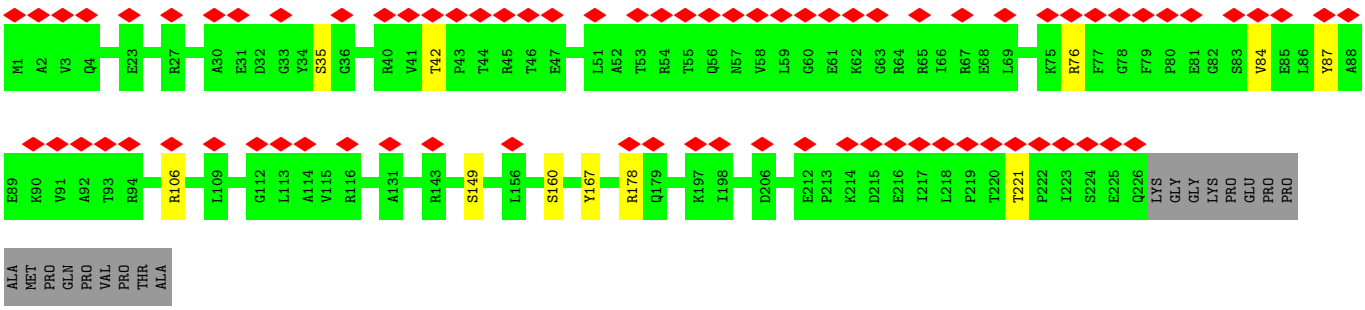
• Molecule 6: 40S ribosomal protein SA

Chain SA:

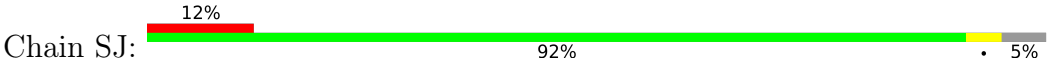


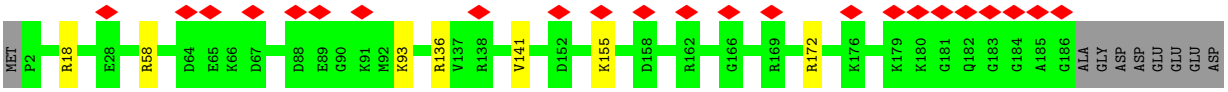
• Molecule 7: 40S ribosomal protein S3



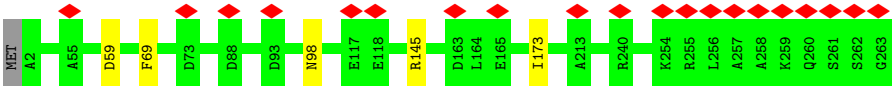


• Molecule 8: 40S ribosomal protein S9

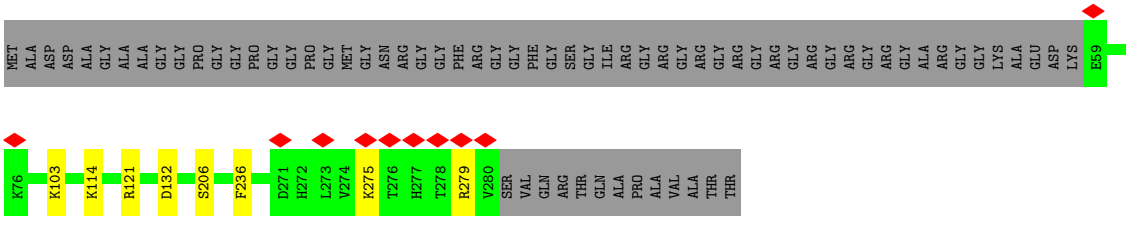




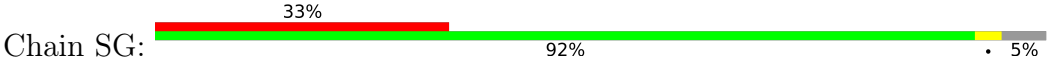
• Molecule 9: 40S ribosomal protein S4, X isoform

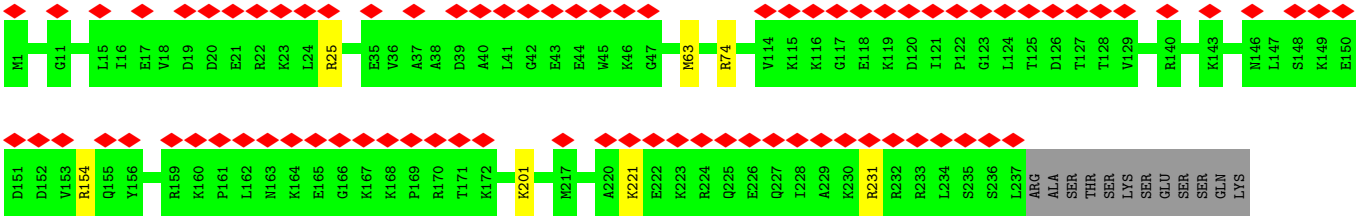


• Molecule 10: 40S ribosomal protein S2

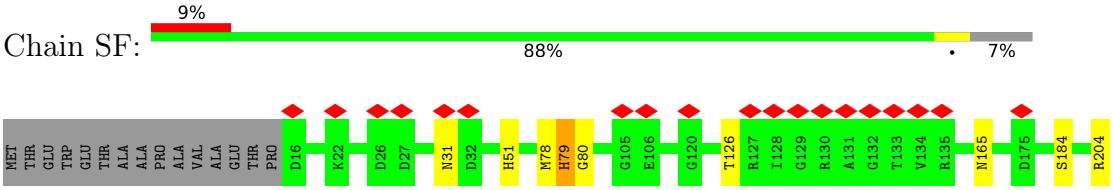


• Molecule 11: 40S ribosomal protein S6

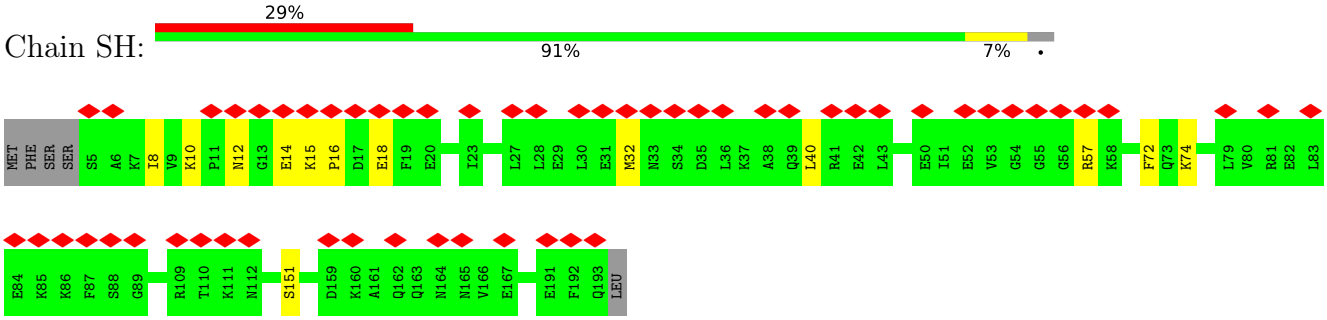




• Molecule 12: 40S ribosomal protein S5

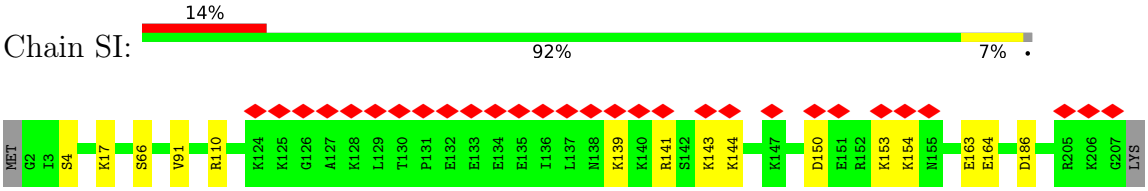


• Molecule 13: 40S ribosomal protein S7

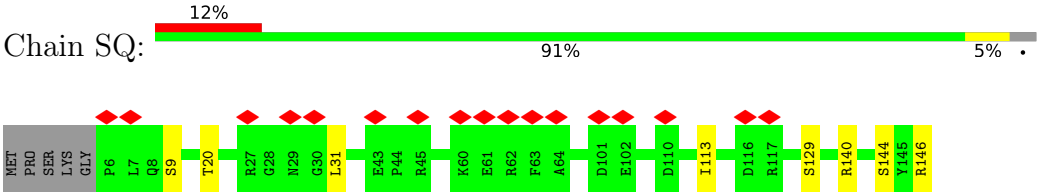


• Molecule 14: 40S ribosomal protein S15a

• Molecule 15: 40S ribosomal protein S8

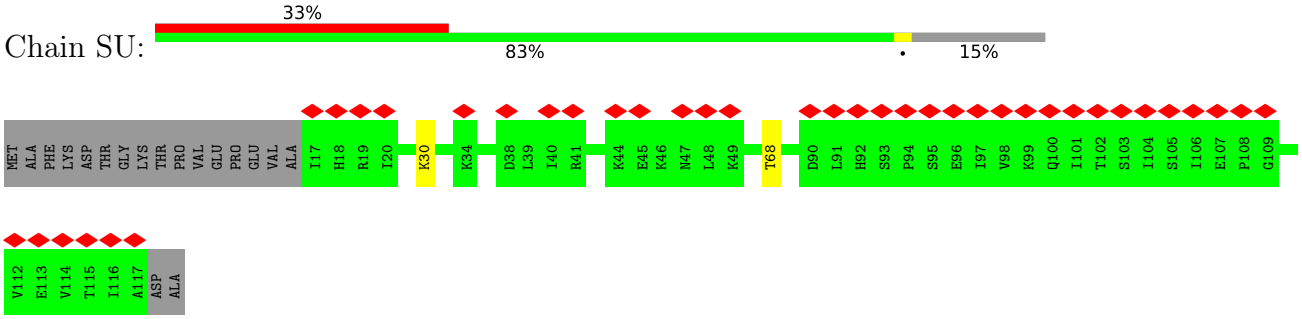


• Molecule 16: 40S ribosomal protein S16



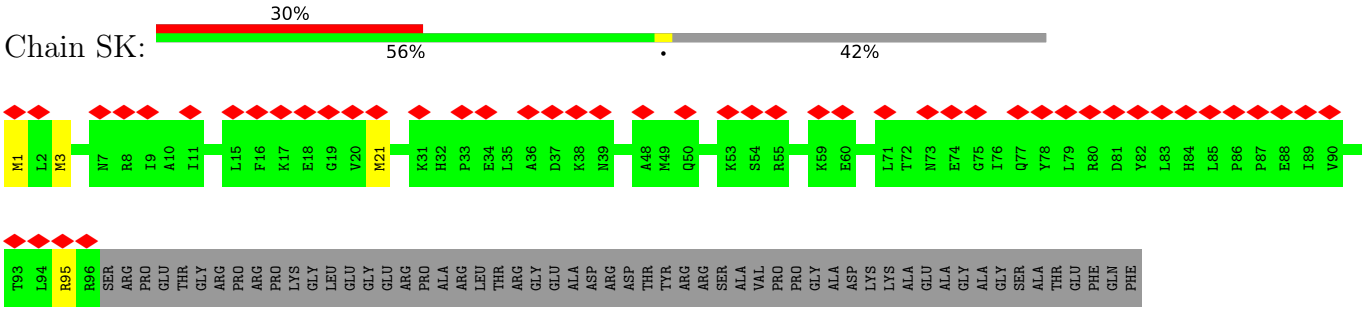
• Molecule 17: 40S ribosomal protein S20

Chain SU:



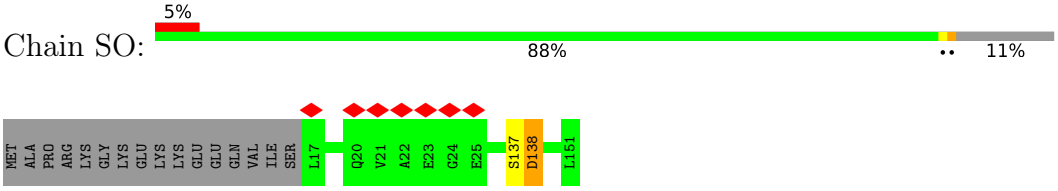
• Molecule 18: 40S ribosomal protein S10

Chain SK:



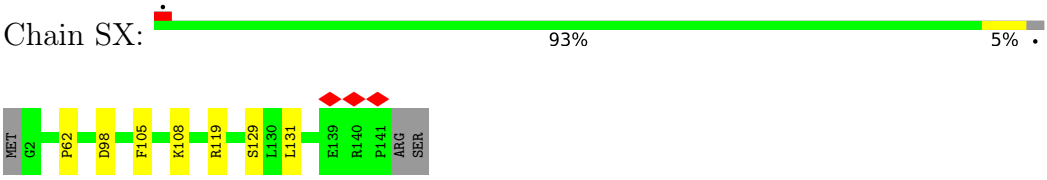
• Molecule 19: 40S ribosomal protein S14

Chain SO:



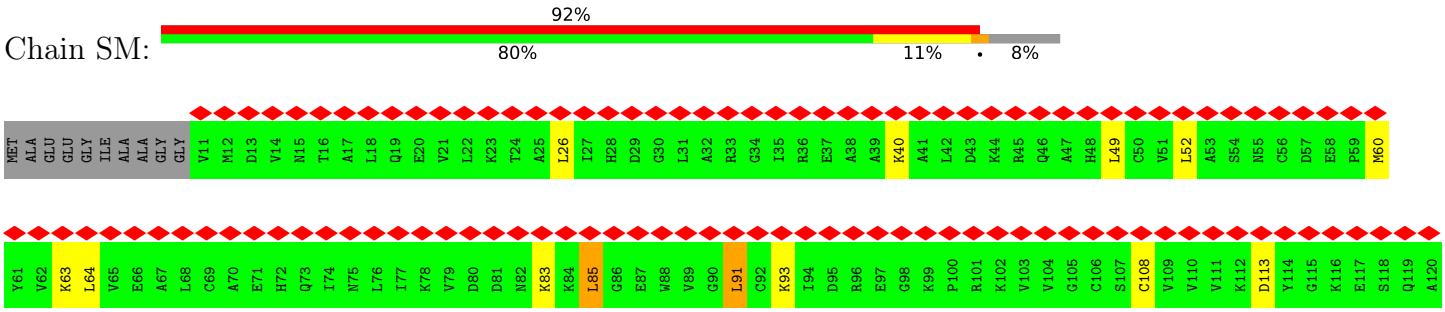
• Molecule 20: 40S ribosomal protein S23 (uS12)

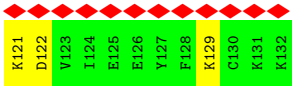
Chain SX:



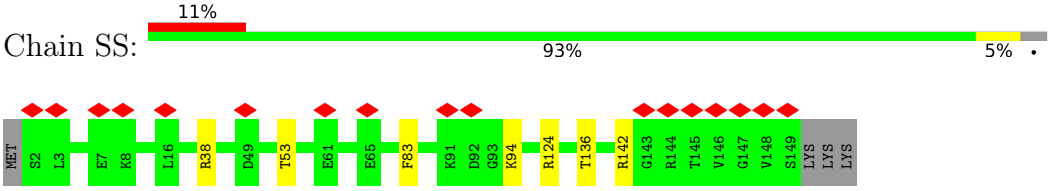
• Molecule 21: 40S ribosomal protein S12

Chain SM:

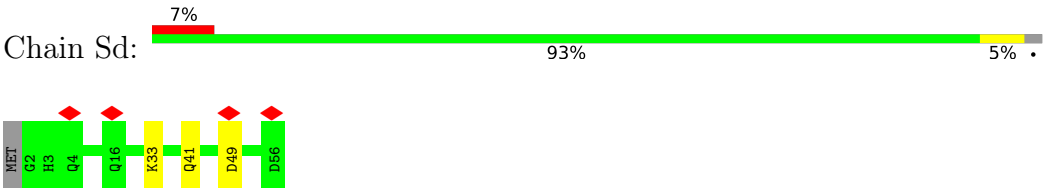




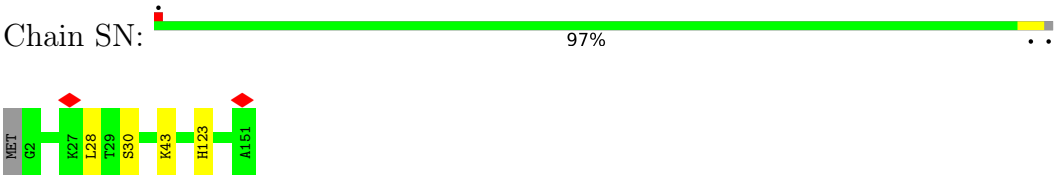
• Molecule 22: 40S ribosomal protein S18



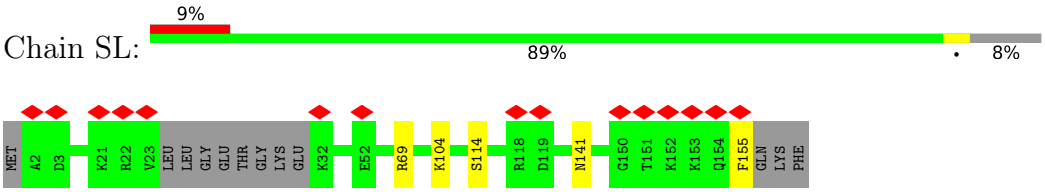
• Molecule 23: 40S ribosomal protein S29



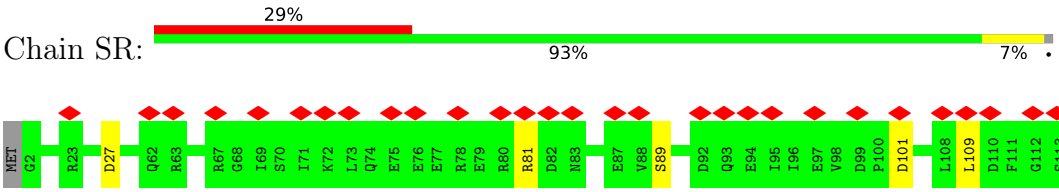
• Molecule 24: 40S ribosomal protein S13



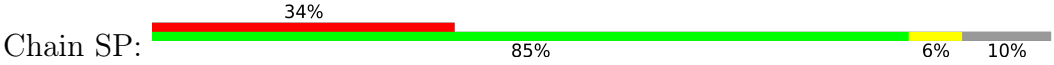
• Molecule 25: 40S ribosomal protein S11

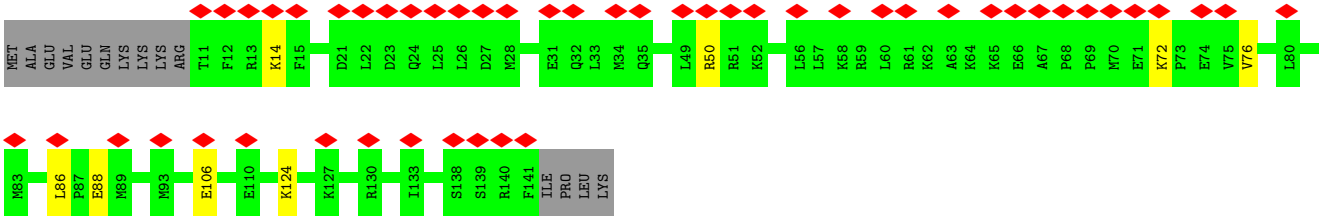


• Molecule 26: 40S ribosomal protein S17

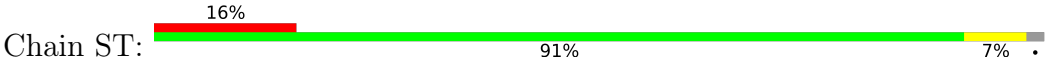


• Molecule 27: 40S ribosomal protein S15



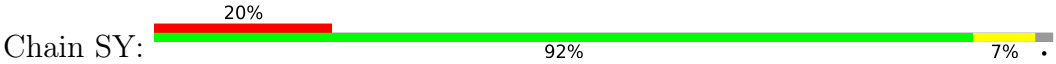


• Molecule 28: 40S ribosomal protein S19

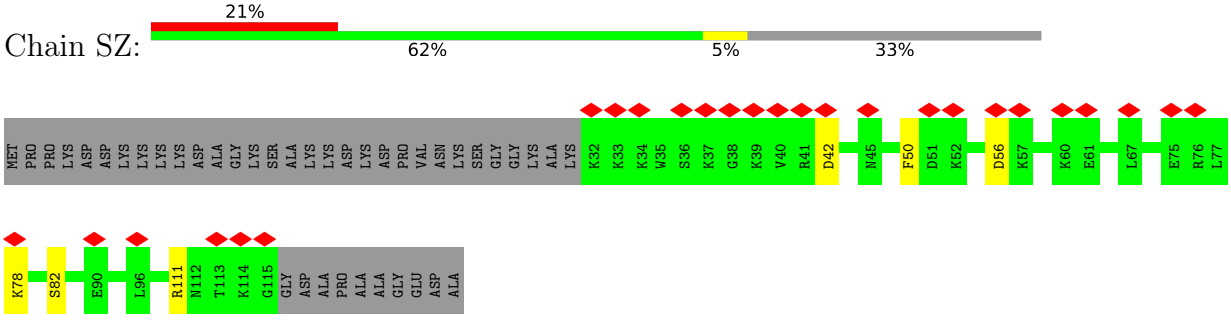


• Molecule 29: 40S ribosomal protein S21

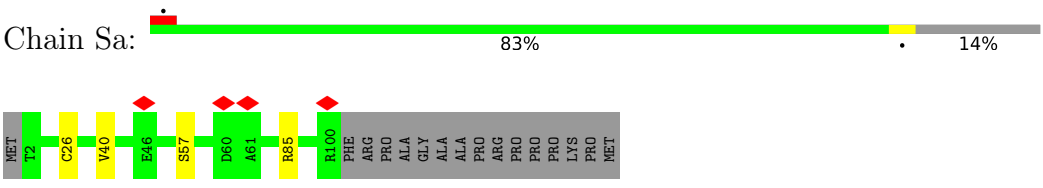
• Molecule 30: 40S ribosomal protein S24



• Molecule 31: 40S ribosomal protein S25

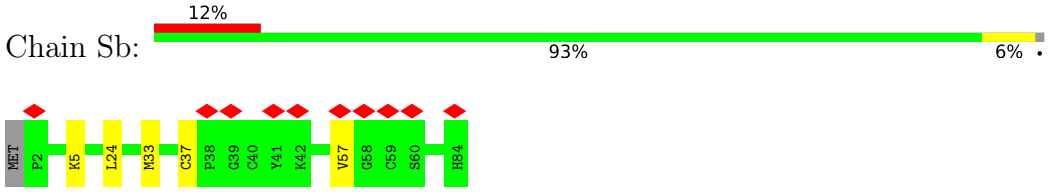


• Molecule 32: 40S ribosomal protein S26



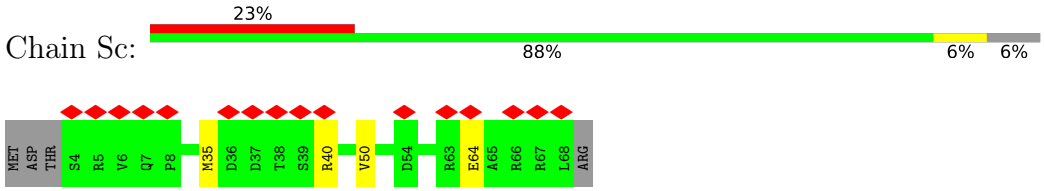
• Molecule 33: 40S ribosomal protein S27

Chain Sb:



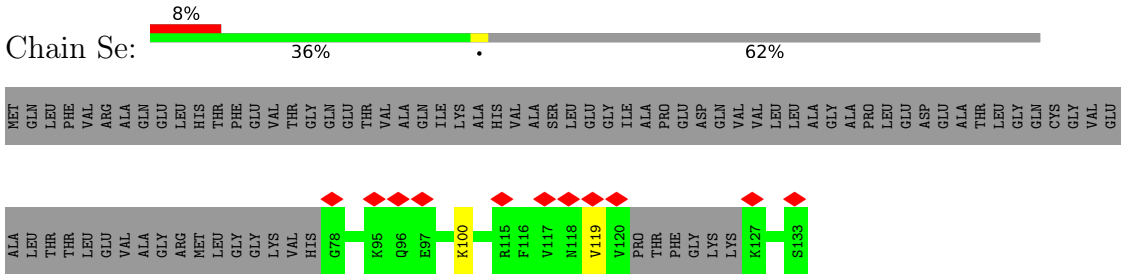
• Molecule 34: 40S ribosomal protein S28

Chain Sc:



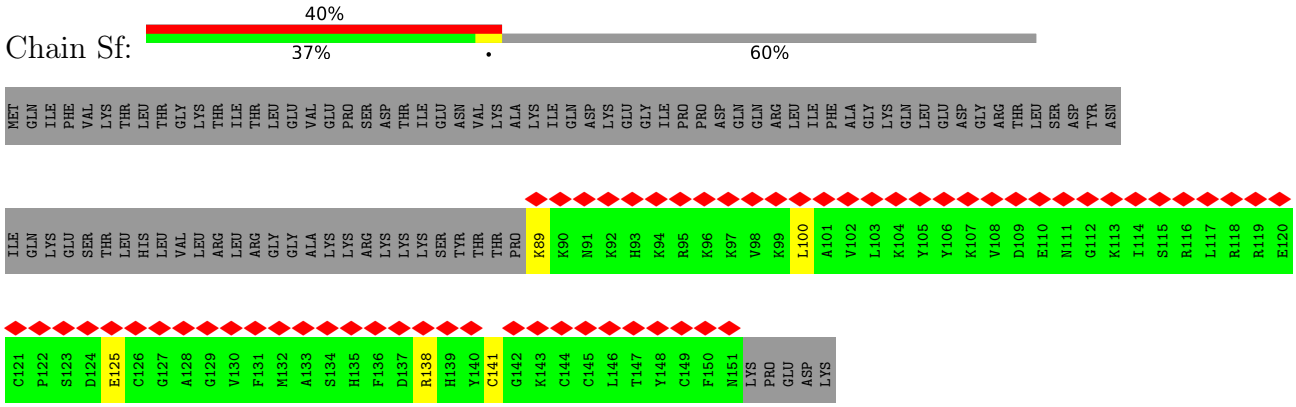
• Molecule 35: FAU ubiquitin-like and ribosomal protein S30

Chain Se:



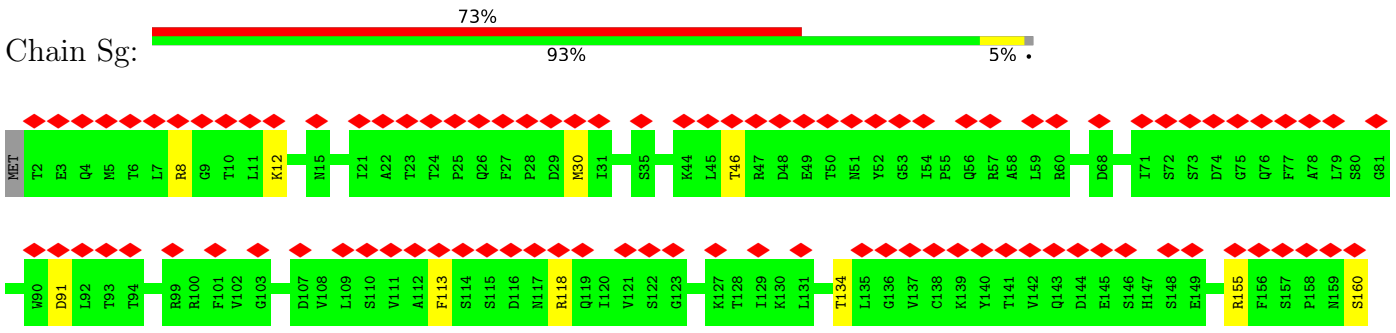
• Molecule 36: Ubiquitin-40S ribosomal protein S27a

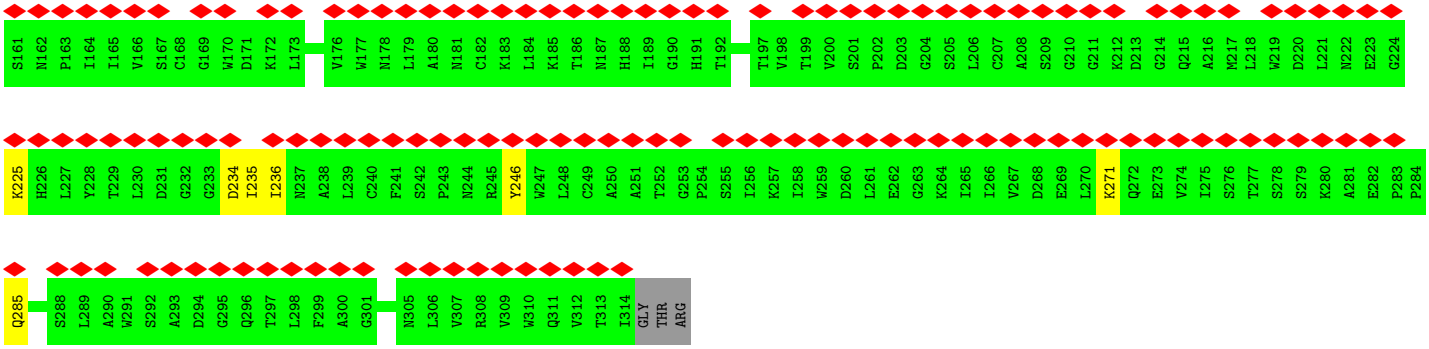
Chain Sf:



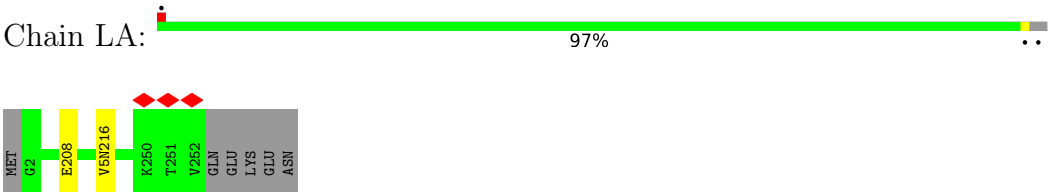
• Molecule 37: Receptor of activated protein C kinase 1

Chain Sg:

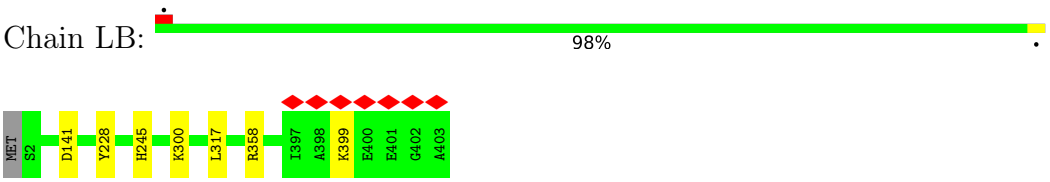




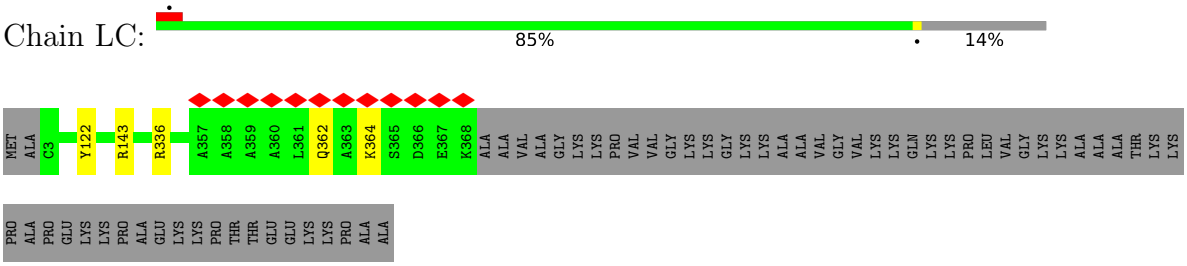
• Molecule 38: 60S ribosomal protein L8 (uL2)



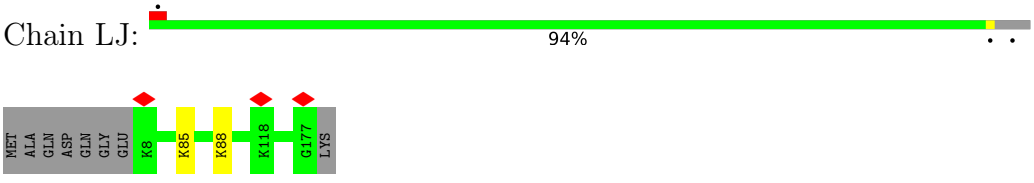
• Molecule 39: 60S ribosomal protein L3



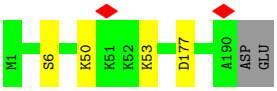
• Molecule 40: 60S ribosomal protein L4



• Molecule 41: 60S ribosomal protein L11

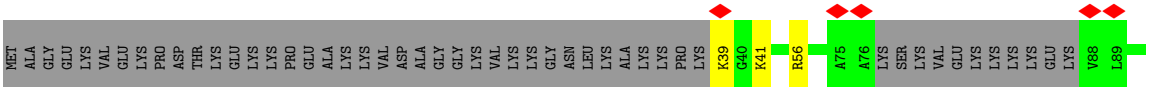


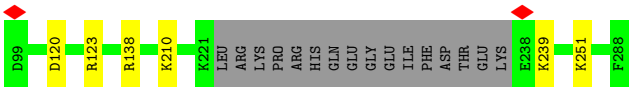
• Molecule 42: 60S ribosomal protein L9



• Molecule 43: 60S ribosomal protein L6

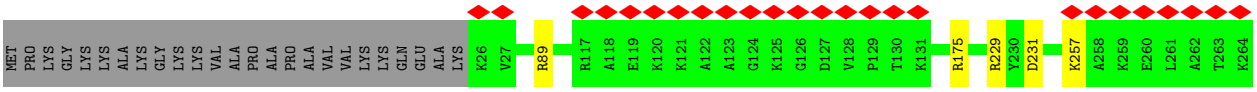
Chain LE:





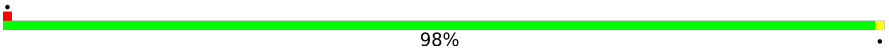
• Molecule 44: 60S ribosomal protein L7a

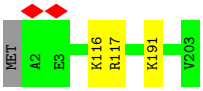
Chain LG:



• Molecule 45: 60S ribosomal protein L13a

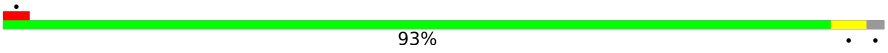
Chain LO:





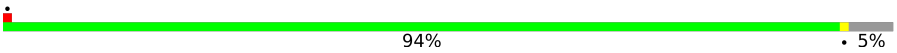
• Molecule 46: 60S ribosomal protein L13

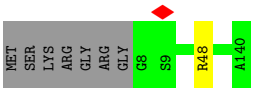
Chain LL:



• Molecule 47: 60S ribosomal protein L23

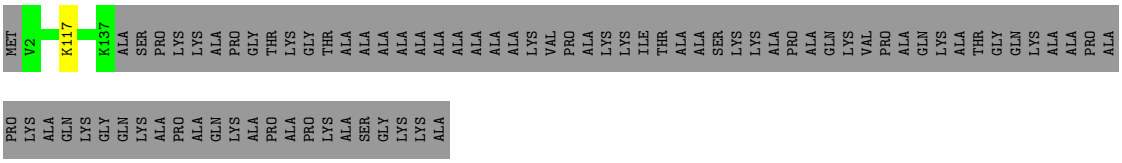
Chain LV:





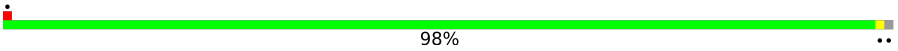
• Molecule 48: 60S ribosomal protein L14

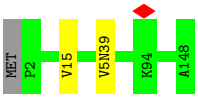
Chain LM:



• Molecule 49: 60S ribosomal protein L27a

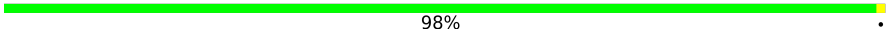
Chain La:





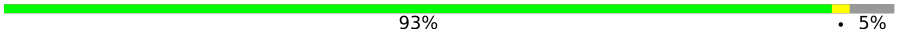
• Molecule 50: 60S ribosomal protein L15

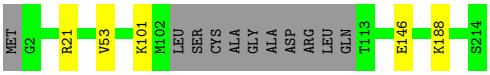
Chain LN:



• Molecule 51: 60S ribosomal protein L10

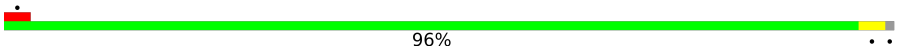
Chain LI:

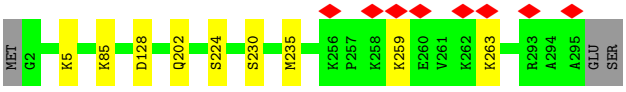




• Molecule 52: 60S ribosomal protein L5

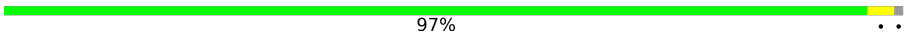
Chain LD:

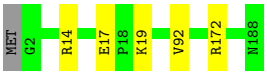




• Molecule 53: 60S ribosomal protein L18

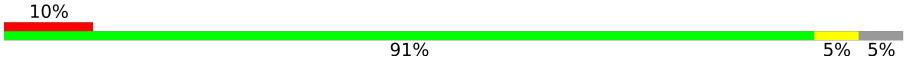
Chain LQ:

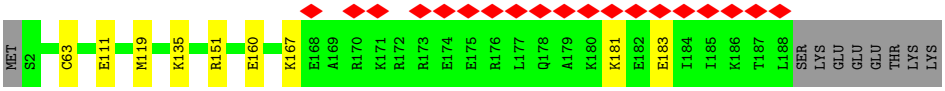




• Molecule 54: 60S ribosomal protein L19

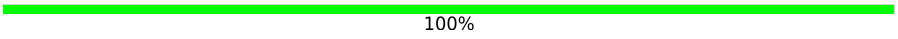
Chain LR:





• Molecule 55: 60S ribosomal protein L18a

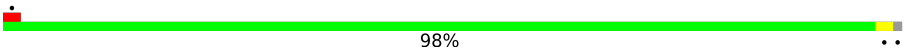
Chain LS:

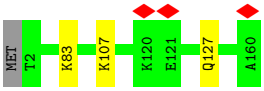


There are no outlier residues recorded for this chain.

• Molecule 56: 60S ribosomal protein L21

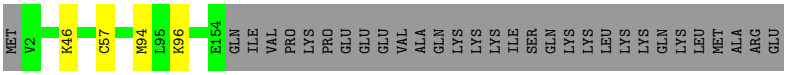
Chain LT:





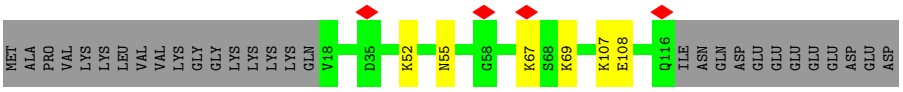
• Molecule 57: 60S ribosomal protein L17

Chain LP:



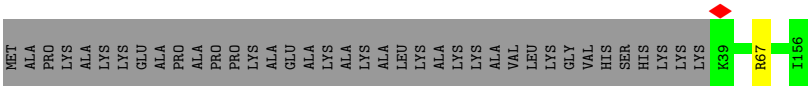
• Molecule 58: 60S ribosomal protein L22

Chain LU:



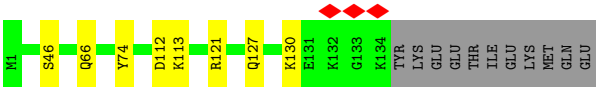
• Molecule 59: 60S ribosomal protein L23a

Chain LX:



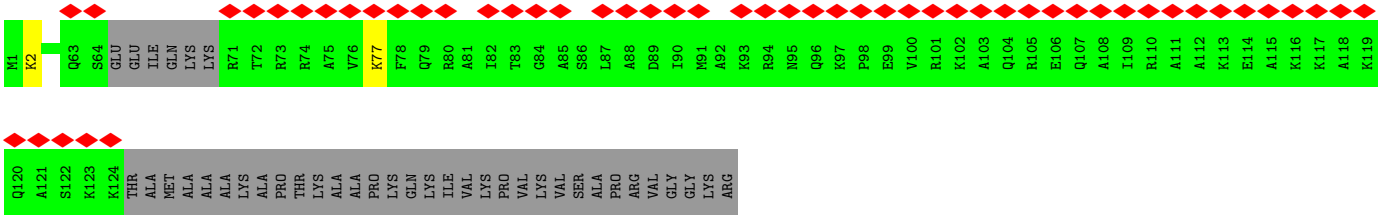
• Molecule 60: 60S ribosomal protein L26

Chain LY:

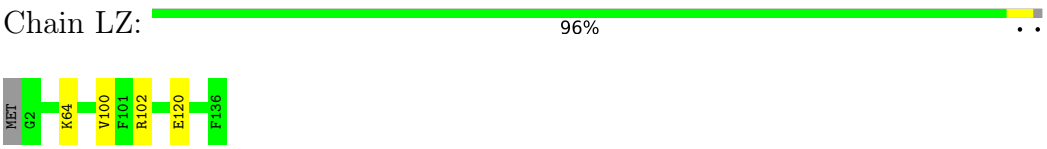


• Molecule 61: 60S ribosomal protein L24

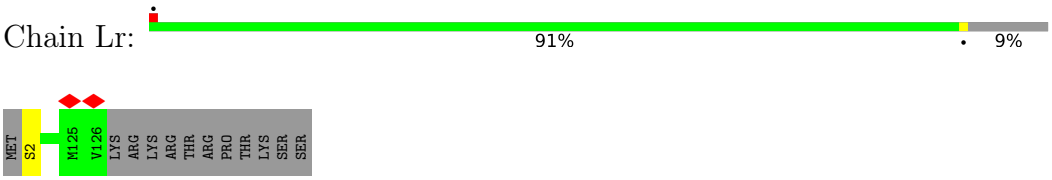
Chain LW:



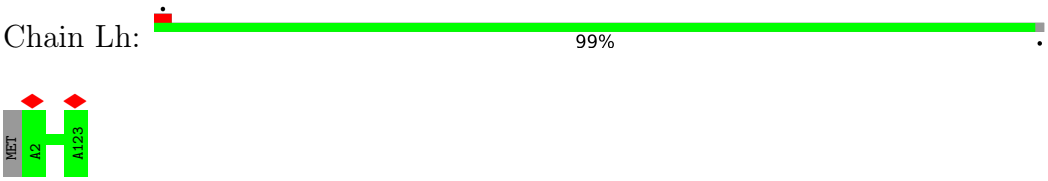
• Molecule 62: 60S ribosomal protein L27



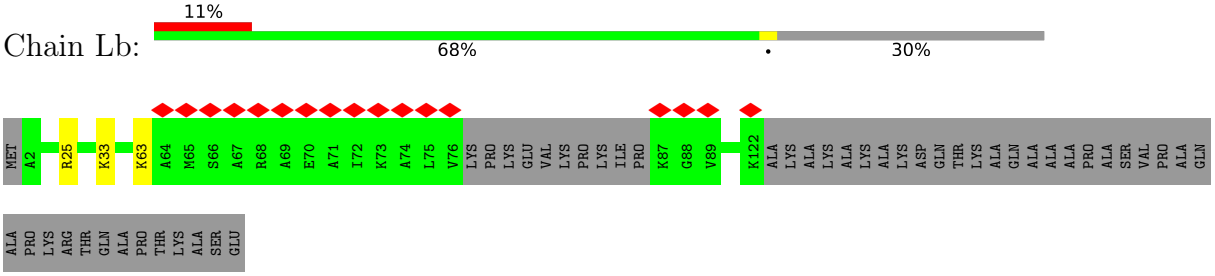
• Molecule 63: 60S ribosomal protein L28



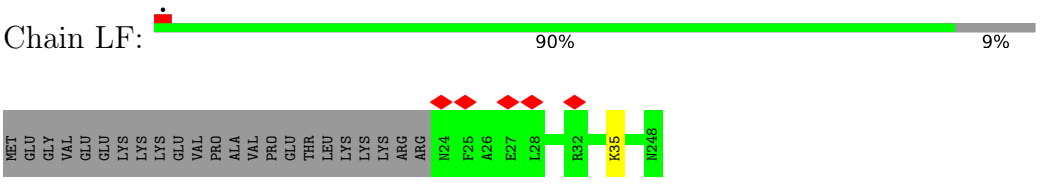
• Molecule 64: 60S ribosomal protein L35



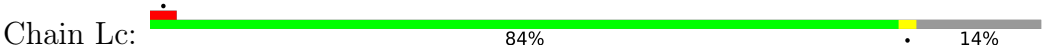
• Molecule 65: 60S ribosomal protein L29

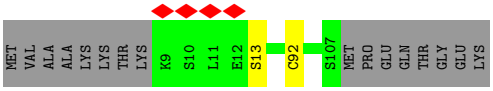


• Molecule 66: 60S ribosomal protein L7



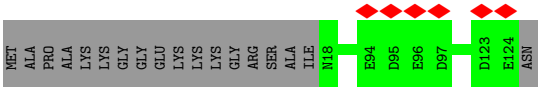
• Molecule 67: 60S ribosomal protein L30





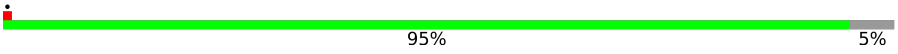
• Molecule 68: 60S ribosomal protein L31

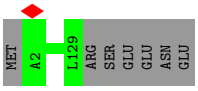
Chain Ld:



• Molecule 69: 60S ribosomal protein L32

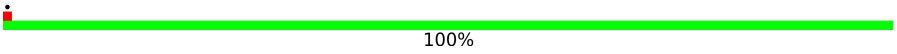
Chain Le:





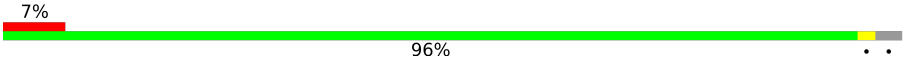
• Molecule 70: 60S ribosomal protein L35a

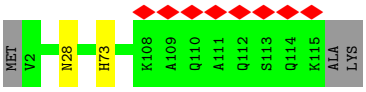
Chain Lf:



• Molecule 71: 60S ribosomal protein L34

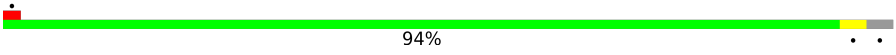
Chain Lg:

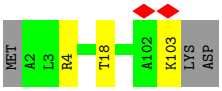




• Molecule 72: 60S ribosomal protein L36

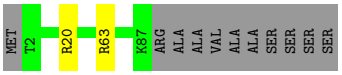
Chain Li:





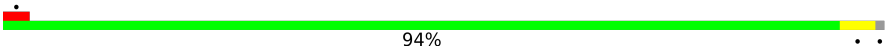
• Molecule 73: 60S ribosomal protein L37

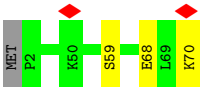
Chain Lj:



• Molecule 74: 60S ribosomal protein L38

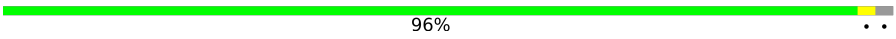
Chain Lk:





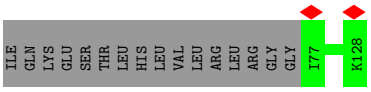
• Molecule 75: 60S ribosomal protein L39

Chain Ll:



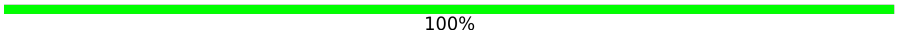
• Molecule 76: 60S ribosomal protein L40 (eL40)

Chain Lm:



• Molecule 77: 60S ribosomal protein L41

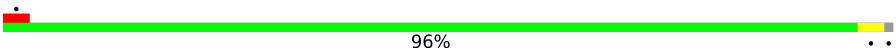
Chain Ln:

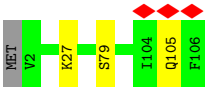


There are no outlier residues recorded for this chain.

• Molecule 78: 60S ribosomal protein L36a

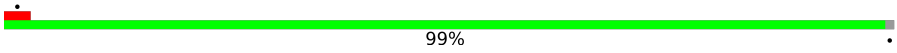
Chain Lo:

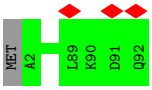




• Molecule 79: 60S ribosomal protein L37a

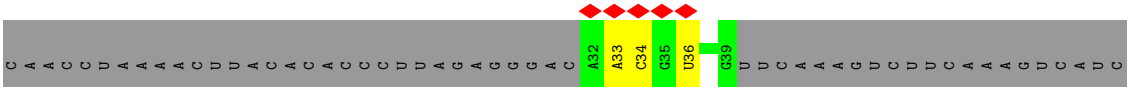
Chain Lp:



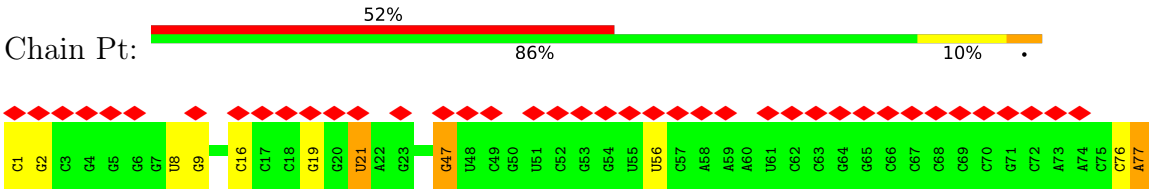


• Molecule 80: mRNA

Chain mR:



• Molecule 81: P-site tRNA



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	845750	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	79	Depositor
Minimum defocus (nm)	-500	Depositor
Maximum defocus (nm)	-1500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.101	Depositor
Minimum map value	-0.016	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.002	Depositor
Recommended contour level	0.007	Depositor
Map size (Å)	528.64, 528.64, 528.64	wwPDB
Map dimensions	640, 640, 640	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.82600003, 0.82600003, 0.82600003	Depositor

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: UR3, MG, HY3, K, G7M, ANM, A2M, MA6, OMG, MLZ, SAC, B8N, TRS, SPD, HIC, M3L, 6MZ, ZN, 1MA, V5N, PSU, 4SU, AME, H2U, OMC, 5MC, PUT, 4AC, 3H3, UY1, OMU

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	S2	0.35	0/37935	0.77	11/59125 (0.0%)
2	L8	0.55	0/3609	0.78	0/5623
3	L5	0.55	0/82080	0.81	16/128048 (0.0%)
4	L7	0.56	0/2858	0.78	0/4455
5	SB	0.27	0/1832	0.50	0/2449
6	SA	0.26	0/1778	0.49	0/2416
7	SD	0.26	0/1784	0.52	0/2403
8	SJ	0.25	0/1550	0.54	0/2069
9	SE	0.26	0/2118	0.53	0/2849
10	SC	0.30	0/1762	0.52	0/2381
11	SG	0.26	0/1946	0.55	0/2590
12	SF	0.29	0/1515	0.55	1/2037 (0.0%)
13	SH	0.29	0/1540	0.53	0/2064
14	SW	0.28	0/1051	0.54	0/1406
15	SI	0.28	0/1715	0.55	0/2287
16	SQ	0.26	0/1141	0.52	0/1528
17	SU	0.27	0/813	0.60	0/1092
18	SK	0.26	0/834	0.49	0/1125
19	SO	0.28	0/1022	0.57	0/1372
20	SX	0.27	0/1096	0.50	0/1461
21	SM	0.26	0/960	0.69	4/1286 (0.3%)
22	SS	0.26	0/1232	0.55	0/1651
23	Sd	0.25	0/469	0.52	0/623
24	SN	0.27	0/1242	0.51	0/1671
25	SL	0.29	0/1221	0.53	0/1632
26	SR	0.27	0/1097	0.61	2/1474 (0.1%)
27	SP	0.28	0/1100	0.56	0/1470
28	ST	0.26	0/1148	0.56	1/1540 (0.1%)
29	SV	0.27	0/635	0.50	0/850
30	SY	0.25	0/1083	0.52	0/1438
31	SZ	0.24	0/682	0.50	0/911

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
32	Sa	0.28	0/816	0.58	0/1093
33	Sb	0.28	0/665	0.49	0/891
34	Sc	0.25	0/514	0.59	0/688
35	Se	0.25	0/396	0.55	0/519
36	Sf	0.25	0/525	0.54	0/695
37	Sg	0.24	0/2493	0.53	0/3394
38	LA	0.32	0/1958	0.59	0/2623
39	LB	0.32	0/3294	0.54	0/4406
40	LC	0.30	0/2968	0.55	0/3985
41	LJ	0.29	0/1385	0.53	0/1852
42	LH	0.30	0/1537	0.54	0/2066
43	LE	0.29	0/1820	0.53	0/2442
44	LG	0.29	0/1959	0.53	0/2637
45	LO	0.32	0/1686	0.53	0/2257
46	LL	0.29	0/1706	0.58	0/2284
47	LV	0.31	0/1002	0.55	0/1345
48	LM	0.31	0/1142	0.52	0/1527
49	La	0.33	0/1178	0.53	0/1573
50	LN	0.36	0/1745	0.61	1/2338 (0.0%)
51	LI	0.31	0/1683	0.54	0/2247
52	LD	0.31	0/2437	0.50	0/3263
53	LQ	0.32	0/1536	0.61	0/2052
54	LR	0.28	0/1582	0.59	0/2091
55	LS	0.34	0/1500	0.56	0/2013
56	LT	0.32	0/1345	0.54	0/1795
57	LP	0.34	0/1279	0.56	0/1716
58	LU	0.31	0/822	0.52	0/1103
59	LX	0.30	0/983	0.53	0/1323
60	LY	0.31	0/1132	0.56	0/1504
61	LW	0.29	0/964	0.54	0/1278
62	LZ	0.32	0/1141	0.53	0/1521
63	Lr	0.31	0/1020	0.58	0/1367
64	Lh	0.29	0/1022	0.52	0/1351
65	Lb	0.28	0/900	0.56	0/1187
66	LF	0.33	0/1926	0.55	0/2567
67	Lc	0.31	0/780	0.50	0/1046
68	Ld	0.30	0/903	0.57	0/1216
69	Le	0.32	0/1082	0.56	0/1443
70	Lf	0.35	0/902	0.58	0/1208
71	Lg	0.31	0/916	0.57	0/1220
72	Li	0.28	0/843	0.55	0/1115
73	Lj	0.33	0/731	0.60	0/967
74	Lk	0.30	0/574	0.50	0/761

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
75	Ll	0.30	0/453	0.56	0/599
76	Lm	0.31	0/433	0.54	0/575
77	Ln	0.28	0/240	0.68	0/305
78	Lo	0.32	0/877	0.53	0/1156
79	Lp	0.31	0/728	0.55	0/967
80	mR	0.18	0/192	0.68	0/297
81	Pt	0.57	6/1721 (0.3%)	1.00	12/2679 (0.4%)
All	All	0.43	6/222284 (0.0%)	0.71	48/325873 (0.0%)

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	Pt	77	A	C5-C4	11.31	1.46	1.38
81	Pt	1	C	OP3-P	-10.58	1.48	1.61
81	Pt	77	A	C5-C6	8.07	1.48	1.41
81	Pt	77	A	N7-C5	-7.33	1.34	1.39
81	Pt	77	A	C8-N7	7.02	1.36	1.31
81	Pt	77	A	N9-C4	-6.52	1.33	1.37

All (48) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
81	Pt	77	A	C2-N3-C4	20.46	120.83	110.60
81	Pt	77	A	N3-C4-C5	-11.77	118.56	126.80
81	Pt	77	A	N1-C2-N3	-11.43	123.59	129.30
81	Pt	77	A	N3-C4-N9	9.67	135.13	127.40
81	Pt	77	A	O4'-C1'-N9	8.27	114.82	108.20
1	S2	199	C	N1-C2-O2	8.13	123.78	118.90
1	S2	199	C	C2-N1-C1'	8.12	127.73	118.80
81	Pt	77	A	C4-C5-N7	-7.84	106.78	110.70
1	S2	1453	C	C2-N1-C1'	7.53	127.08	118.80
21	SM	64	LEU	CA-CB-CG	7.39	132.29	115.30
81	Pt	77	A	C8-N9-C4	7.36	108.75	105.80
81	Pt	77	A	C5-N7-C8	7.19	107.50	103.90
81	Pt	77	A	N1-C6-N6	7.06	122.84	118.60
3	L5	417	G	O4'-C1'-N9	6.99	113.79	108.20
3	L5	180	C	N1-C2-O2	6.58	122.85	118.90
1	S2	1453	C	N1-C2-O2	6.53	122.82	118.90
28	ST	110	LEU	CA-CB-CG	6.47	130.17	115.30
1	S2	199	C	N3-C2-O2	-6.33	117.47	121.90
3	L5	2469	C	C2-N1-C1'	6.26	125.69	118.80
21	SM	91	LEU	CA-CB-CG	6.24	129.64	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
81	Pt	77	A	N7-C8-N9	-6.21	110.69	113.80
3	L5	233	U	P-O3'-C3'	6.17	127.10	119.70
26	SR	81	ARG	CB-CG-CD	6.16	127.61	111.60
3	L5	2409	U	C2-N1-C1'	6.13	125.06	117.70
3	L5	1552	G	O4'-C1'-N9	6.12	113.09	108.20
26	SR	109	LEU	CA-CB-CG	5.92	128.91	115.30
81	Pt	77	A	C5-C6-N6	-5.88	118.99	123.70
1	S2	199	C	C6-N1-C1'	-5.69	113.98	120.80
50	LN	123	GLU	CB-CA-C	-5.60	99.20	110.40
3	L5	1501	C	N1-C2-O2	5.49	122.19	118.90
21	SM	85	LEU	CA-CB-CG	5.40	127.73	115.30
1	S2	1453	C	C6-N1-C1'	-5.38	114.34	120.80
21	SM	64	LEU	CB-CG-CD2	5.33	120.06	111.00
3	L5	2627	C	C2-N1-C1'	5.29	124.61	118.80
1	S2	1753	C	N3-C2-O2	-5.26	118.22	121.90
3	L5	1597	G	O4'-C1'-N9	5.17	112.34	108.20
3	L5	308	G	O4'-C1'-N9	5.17	112.33	108.20
3	L5	2529	A	O4'-C1'-N9	5.16	112.33	108.20
81	Pt	77	A	C6-C5-N7	5.16	135.91	132.30
1	S2	199	C	C6-N1-C2	-5.15	118.24	120.30
3	L5	4404	U	O4'-C1'-N1	5.11	112.29	108.20
1	S2	1022	U	C2-N1-C1'	5.11	123.83	117.70
3	L5	1590	C	P-O3'-C3'	5.08	125.79	119.70
3	L5	180	C	N3-C2-O2	-5.07	118.35	121.90
1	S2	1453	C	N3-C2-O2	-5.05	118.36	121.90
3	L5	2409	U	N1-C2-O2	5.03	126.32	122.80
12	SF	79	HIS	CB-CA-C	5.01	120.42	110.40
3	L5	278	G	O4'-C1'-N9	-5.00	104.20	108.20

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

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 PDB entries followed by that with respect to all EM entries.

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	
5	SB	219/264 (83%)	217 (99%)	2 (1%)	0	100	100
6	SA	220/295 (75%)	214 (97%)	6 (3%)	0	100	100
7	SD	224/243 (92%)	213 (95%)	11 (5%)	0	100	100
8	SJ	183/194 (94%)	179 (98%)	4 (2%)	0	100	100
9	SE	260/263 (99%)	253 (97%)	7 (3%)	0	100	100
10	SC	220/293 (75%)	215 (98%)	5 (2%)	0	100	100
11	SG	235/249 (94%)	232 (99%)	3 (1%)	0	100	100
12	SF	187/204 (92%)	179 (96%)	6 (3%)	2 (1%)	14	3
13	SH	187/194 (96%)	176 (94%)	9 (5%)	2 (1%)	14	3
14	SW	127/130 (98%)	124 (98%)	3 (2%)	0	100	100
15	SI	204/208 (98%)	198 (97%)	6 (3%)	0	100	100
16	SQ	139/146 (95%)	134 (96%)	5 (4%)	0	100	100
17	SU	99/119 (83%)	95 (96%)	4 (4%)	0	100	100
18	SK	94/165 (57%)	91 (97%)	3 (3%)	0	100	100
19	SO	133/151 (88%)	128 (96%)	4 (3%)	1 (1%)	19	6
20	SX	137/143 (96%)	135 (98%)	2 (2%)	0	100	100
21	SM	120/132 (91%)	115 (96%)	5 (4%)	0	100	100
22	SS	146/152 (96%)	143 (98%)	3 (2%)	0	100	100
23	Sd	53/56 (95%)	53 (100%)	0	0	100	100
24	SN	149/151 (99%)	148 (99%)	1 (1%)	0	100	100
25	SL	142/158 (90%)	139 (98%)	3 (2%)	0	100	100
26	SR	132/135 (98%)	121 (92%)	11 (8%)	0	100	100
27	SP	129/145 (89%)	126 (98%)	3 (2%)	0	100	100
28	ST	142/145 (98%)	136 (96%)	6 (4%)	0	100	100
29	SV	81/83 (98%)	80 (99%)	1 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
30	SY	129/133 (97%)	126 (98%)	3 (2%)	0	100	100
31	SZ	82/125 (66%)	78 (95%)	4 (5%)	0	100	100
32	Sa	98/115 (85%)	98 (100%)	0	0	100	100
33	Sb	81/84 (96%)	76 (94%)	5 (6%)	0	100	100
34	Sc	63/69 (91%)	60 (95%)	3 (5%)	0	100	100
35	Se	46/133 (35%)	45 (98%)	0	1 (2%)	6	1
36	Sf	61/156 (39%)	53 (87%)	8 (13%)	0	100	100
37	Sg	311/317 (98%)	292 (94%)	19 (6%)	0	100	100
38	LA	249/257 (97%)	240 (96%)	9 (4%)	0	100	100
39	LB	399/403 (99%)	391 (98%)	8 (2%)	0	100	100
40	LC	364/427 (85%)	361 (99%)	3 (1%)	0	100	100
41	LJ	168/178 (94%)	167 (99%)	1 (1%)	0	100	100
42	LH	188/192 (98%)	184 (98%)	4 (2%)	0	100	100
43	LE	217/288 (75%)	212 (98%)	5 (2%)	0	100	100
44	LG	239/266 (90%)	230 (96%)	9 (4%)	0	100	100
45	LO	200/203 (98%)	199 (100%)	1 (0%)	0	100	100
46	LL	205/211 (97%)	198 (97%)	7 (3%)	0	100	100
47	LV	131/140 (94%)	130 (99%)	1 (1%)	0	100	100
48	LM	134/215 (62%)	132 (98%)	2 (2%)	0	100	100
49	La	144/148 (97%)	138 (96%)	5 (4%)	1 (1%)	22	8
50	LN	201/204 (98%)	197 (98%)	4 (2%)	0	100	100
51	LI	199/214 (93%)	198 (100%)	1 (0%)	0	100	100
52	LD	292/297 (98%)	288 (99%)	4 (1%)	0	100	100
53	LQ	185/188 (98%)	184 (100%)	1 (0%)	0	100	100
54	LR	185/196 (94%)	183 (99%)	2 (1%)	0	100	100
55	LS	174/176 (99%)	172 (99%)	2 (1%)	0	100	100
56	LT	159/160 (99%)	157 (99%)	2 (1%)	0	100	100
57	LP	152/184 (83%)	150 (99%)	2 (1%)	0	100	100
58	LU	97/128 (76%)	95 (98%)	1 (1%)	1 (1%)	15	3
59	LX	116/156 (74%)	114 (98%)	2 (2%)	0	100	100
60	LY	132/145 (91%)	129 (98%)	3 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
61	LW	114/157 (73%)	109 (96%)	5 (4%)	0	100	100
62	LZ	134/136 (98%)	132 (98%)	2 (2%)	0	100	100
63	Lr	124/137 (90%)	124 (100%)	0	0	100	100
64	Lh	120/123 (98%)	119 (99%)	1 (1%)	0	100	100
65	Lb	106/159 (67%)	103 (97%)	3 (3%)	0	100	100
66	LF	225/248 (91%)	219 (97%)	6 (3%)	0	100	100
67	Lc	97/115 (84%)	97 (100%)	0	0	100	100
68	Ld	105/125 (84%)	104 (99%)	1 (1%)	0	100	100
69	Le	127/135 (94%)	127 (100%)	0	0	100	100
70	Lf	108/110 (98%)	108 (100%)	0	0	100	100
71	Lg	112/117 (96%)	111 (99%)	1 (1%)	0	100	100
72	Li	100/105 (95%)	99 (99%)	1 (1%)	0	100	100
73	Lj	85/97 (88%)	85 (100%)	0	0	100	100
74	Lk	67/70 (96%)	67 (100%)	0	0	100	100
75	Ll	48/51 (94%)	48 (100%)	0	0	100	100
76	Lm	50/128 (39%)	50 (100%)	0	0	100	100
77	Ln	23/25 (92%)	23 (100%)	0	0	100	100
78	Lo	103/106 (97%)	102 (99%)	1 (1%)	0	100	100
79	Lp	90/92 (98%)	85 (94%)	5 (6%)	0	100	100
All	All	11301/12762 (89%)	11033 (98%)	260 (2%)	8 (0%)	54	32

All (8) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
35	Se	119	VAL
19	SO	138	ASP
13	SH	18	GLU
12	SF	79	HIS
12	SF	80	GLY
49	La	15	VAL
58	LU	67	LYS
13	SH	16	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 PDB entries followed by that with respect to all EM entries.

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
5	SB	202/231 (87%)	193 (96%)	9 (4%)	27 9
6	SA	183/242 (76%)	176 (96%)	7 (4%)	33 12
7	SD	189/202 (94%)	178 (94%)	11 (6%)	20 5
8	SJ	161/168 (96%)	154 (96%)	7 (4%)	29 10
9	SE	224/225 (100%)	219 (98%)	5 (2%)	52 32
10	SC	188/225 (84%)	180 (96%)	8 (4%)	29 10
11	SG	207/218 (95%)	200 (97%)	7 (3%)	37 15
12	SF	159/170 (94%)	152 (96%)	7 (4%)	28 9
13	SH	168/174 (97%)	157 (94%)	11 (6%)	17 4
14	SW	112/113 (99%)	109 (97%)	3 (3%)	44 24
15	SI	178/180 (99%)	163 (92%)	15 (8%)	11 2
16	SQ	117/121 (97%)	109 (93%)	8 (7%)	16 3
17	SU	93/107 (87%)	91 (98%)	2 (2%)	52 32
18	SK	87/136 (64%)	83 (95%)	4 (5%)	27 9
19	SO	105/119 (88%)	103 (98%)	2 (2%)	57 38
20	SX	111/114 (97%)	105 (95%)	6 (5%)	22 6
21	SM	104/108 (96%)	89 (86%)	15 (14%)	3 0
22	SS	128/132 (97%)	121 (94%)	7 (6%)	21 6
23	Sd	48/49 (98%)	45 (94%)	3 (6%)	18 4
24	SN	131/131 (100%)	126 (96%)	5 (4%)	33 12
25	SL	132/142 (93%)	127 (96%)	5 (4%)	33 12
26	SR	121/122 (99%)	114 (94%)	7 (6%)	20 5
27	SP	117/130 (90%)	109 (93%)	8 (7%)	16 3
28	ST	114/115 (99%)	105 (92%)	9 (8%)	12 2
29	SV	66/66 (100%)	63 (96%)	3 (4%)	27 9
30	SY	113/115 (98%)	104 (92%)	9 (8%)	12 2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
31	SZ	74/103 (72%)	68 (92%)	6 (8%)	11 2
32	Sa	87/98 (89%)	82 (94%)	5 (6%)	20 5
33	Sb	75/76 (99%)	70 (93%)	5 (7%)	16 3
34	Sc	58/62 (94%)	54 (93%)	4 (7%)	15 3
35	Se	40/104 (38%)	39 (98%)	1 (2%)	47 26
36	Sf	56/140 (40%)	51 (91%)	5 (9%)	9 2
37	Sg	272/275 (99%)	255 (94%)	17 (6%)	18 4
38	LA	193/198 (98%)	192 (100%)	1 (0%)	88 83
39	LB	347/348 (100%)	341 (98%)	6 (2%)	60 43
40	LC	305/348 (88%)	300 (98%)	5 (2%)	62 46
41	LJ	143/149 (96%)	141 (99%)	2 (1%)	67 51
42	LH	169/171 (99%)	165 (98%)	4 (2%)	49 28
43	LE	196/252 (78%)	187 (95%)	9 (5%)	27 9
44	LG	203/223 (91%)	198 (98%)	5 (2%)	47 26
45	LO	173/174 (99%)	170 (98%)	3 (2%)	60 43
46	LL	173/177 (98%)	164 (95%)	9 (5%)	23 7
47	LV	102/107 (95%)	101 (99%)	1 (1%)	76 65
48	LM	116/161 (72%)	115 (99%)	1 (1%)	78 69
49	La	119/120 (99%)	119 (100%)	0	100 100
50	LN	171/172 (99%)	169 (99%)	2 (1%)	71 57
51	LI	173/181 (96%)	168 (97%)	5 (3%)	42 21
52	LD	247/250 (99%)	238 (96%)	9 (4%)	35 14
53	LQ	164/165 (99%)	159 (97%)	5 (3%)	41 20
54	LR	166/175 (95%)	157 (95%)	9 (5%)	22 6
55	LS	157/157 (100%)	157 (100%)	0	100 100
56	LT	141/140 (101%)	138 (98%)	3 (2%)	53 33
57	LP	135/163 (83%)	131 (97%)	4 (3%)	41 20
58	LU	89/115 (77%)	84 (94%)	5 (6%)	21 6
59	LX	106/133 (80%)	105 (99%)	1 (1%)	78 69
60	LY	124/135 (92%)	116 (94%)	8 (6%)	17 4
61	LW	95/126 (75%)	93 (98%)	2 (2%)	53 33

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
62	LZ	118/118 (100%)	114 (97%)	4 (3%)	37 15
63	Lr	109/120 (91%)	109 (100%)	0	100 100
64	Lh	109/110 (99%)	109 (100%)	0	100 100
65	Lb	90/125 (72%)	87 (97%)	3 (3%)	38 16
66	LF	196/215 (91%)	195 (100%)	1 (0%)	88 83
67	Lc	84/97 (87%)	82 (98%)	2 (2%)	49 28
68	Ld	98/110 (89%)	98 (100%)	0	100 100
69	Le	115/121 (95%)	115 (100%)	0	100 100
70	Lf	89/89 (100%)	89 (100%)	0	100 100
71	Lg	98/100 (98%)	96 (98%)	2 (2%)	55 36
72	Li	86/89 (97%)	83 (96%)	3 (4%)	36 15
73	Lj	74/80 (92%)	72 (97%)	2 (3%)	44 24
74	Lk	64/65 (98%)	61 (95%)	3 (5%)	26 8
75	Ll	47/48 (98%)	46 (98%)	1 (2%)	53 33
76	Lm	48/115 (42%)	48 (100%)	0	100 100
77	Ln	24/24 (100%)	24 (100%)	0	100 100
78	Lo	93/93 (100%)	90 (97%)	3 (3%)	39 17
79	Lp	75/75 (100%)	75 (100%)	0	100 100
All	All	9844/10847 (91%)	9495 (96%)	349 (4%)	39 15

All (349) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	SB	9	LEU
5	SB	27	LYS
5	SB	43	ASN
5	SB	53	GLN
5	SB	56	LYS
5	SB	115	LYS
5	SB	131	ASP
5	SB	139	CYS
5	SB	232	HIS
6	SA	40	LYS
6	SA	141	ASN
6	SA	158	ASP
6	SA	190	SER

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Mol	Chain	Res	Type
6	SA	206	ASP
6	SA	208	GLU
6	SA	211	GLU
7	SD	35	SER
7	SD	42	THR
7	SD	76	ARG
7	SD	84	VAL
7	SD	87	TYR
7	SD	106	ARG
7	SD	149	SER
7	SD	160	SER
7	SD	167	TYR
7	SD	178	ARG
7	SD	221	THR
8	SJ	18	ARG
8	SJ	58	ARG
8	SJ	93	LYS
8	SJ	136	ARG
8	SJ	141	VAL
8	SJ	155	LYS
8	SJ	172	ARG
9	SE	59	ASP
9	SE	69	PHE
9	SE	98	ASN
9	SE	145	ARG
9	SE	173	ILE
10	SC	103	LYS
10	SC	114	LYS
10	SC	121	ARG
10	SC	132	ASP
10	SC	206	SER
10	SC	236	PHE
10	SC	275	LYS
10	SC	279	ARG
11	SG	25	ARG
11	SG	63	MET
11	SG	74	ARG
11	SG	154	ARG
11	SG	201	LYS
11	SG	221	LYS
11	SG	231	ARG
12	SF	31	ASN

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Mol	Chain	Res	Type
12	SF	51	HIS
12	SF	78	MET
12	SF	126	THR
12	SF	165	ASN
12	SF	184	SER
12	SF	204	ARG
13	SH	8	ILE
13	SH	10	LYS
13	SH	12	ASN
13	SH	14	GLU
13	SH	15	LYS
13	SH	32	MET
13	SH	40	LEU
13	SH	57	ARG
13	SH	72	PHE
13	SH	74	LYS
13	SH	151	SER
14	SW	12	LYS
14	SW	30	CYS
14	SW	36	ARG
15	SI	4	SER
15	SI	17	LYS
15	SI	66	SER
15	SI	91	VAL
15	SI	110	ARG
15	SI	139	LYS
15	SI	141	ARG
15	SI	143	LYS
15	SI	144	LYS
15	SI	150	ASP
15	SI	153	LYS
15	SI	154	LYS
15	SI	163	GLU
15	SI	164	GLU
15	SI	186	ASP
16	SQ	9	SER
16	SQ	20	THR
16	SQ	31	LEU
16	SQ	113	ILE
16	SQ	129	SER
16	SQ	140	ARG
16	SQ	144	SER

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Mol	Chain	Res	Type
16	SQ	146	ARG
17	SU	30	LYS
17	SU	68	THR
18	SK	1	MET
18	SK	3	MET
18	SK	21	MET
18	SK	95	ARG
19	SO	137	SER
19	SO	138	ASP
20	SX	98	ASP
20	SX	105	PHE
20	SX	108	LYS
20	SX	119	ARG
20	SX	129	SER
20	SX	131	LEU
21	SM	26	LEU
21	SM	40	LYS
21	SM	49	LEU
21	SM	52	LEU
21	SM	60	MET
21	SM	63	LYS
21	SM	83	LYS
21	SM	85	LEU
21	SM	91	LEU
21	SM	93	LYS
21	SM	108	CYS
21	SM	113	ASP
21	SM	121	LYS
21	SM	122	ASP
21	SM	129	LYS
22	SS	38	ARG
22	SS	53	THR
22	SS	83	PHE
22	SS	94	LYS
22	SS	124	ARG
22	SS	136	THR
22	SS	142	ARG
23	Sd	33	LYS
23	Sd	41	GLN
23	Sd	49	ASP
24	SN	28	LEU
24	SN	30	SER

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Mol	Chain	Res	Type
24	SN	43	LYS
24	SN	123[A]	HIS
24	SN	123[B]	HIS
25	SL	69	ARG
25	SL	104	LYS
25	SL	114	SER
25	SL	141	ASN
25	SL	155	PHE
26	SR	27	ASP
26	SR	89	SER
26	SR	101	ASP
26	SR	117	LEU
26	SR	118	GLN
26	SR	122	PRO
26	SR	130	THR
27	SP	14	LYS
27	SP	50	ARG
27	SP	72	LYS
27	SP	76	VAL
27	SP	86	LEU
27	SP	88	GLU
27	SP	106	GLU
27	SP	124	LYS
28	ST	4	VAL
28	ST	23	LYS
28	ST	25	SER
28	ST	27	LYS
28	ST	36	THR
28	ST	38	LYS
28	ST	87	VAL
28	ST	111	LYS
28	ST	115	LYS
29	SV	10	ASP
29	SV	66	ASP
29	SV	82	ASN
30	SY	16	ARG
30	SY	23	MET
30	SY	35	VAL
30	SY	46	LYS
30	SY	51	THR
30	SY	61	ARG
30	SY	63	HIS

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Mol	Chain	Res	Type
30	SY	94	HIS
30	SY	105	LYS
31	SZ	42	ASP
31	SZ	50	PHE
31	SZ	56	ASP
31	SZ	78	LYS
31	SZ	82	SER
31	SZ	111	ARG
32	Sa	26	CYS
32	Sa	40	VAL
32	Sa	57	SER
32	Sa	85[A]	ARG
32	Sa	85[B]	ARG
33	Sb	5	LYS
33	Sb	24	LEU
33	Sb	33	MET
33	Sb	37	CYS
33	Sb	57	VAL
34	Sc	35	MET
34	Sc	40	ARG
34	Sc	50	VAL
34	Sc	64	GLU
35	Se	100	LYS
36	Sf	89	LYS
36	Sf	100	LEU
36	Sf	125	GLU
36	Sf	138	ARG
36	Sf	141	CYS
37	Sg	8	ARG
37	Sg	12	LYS
37	Sg	30	MET
37	Sg	46	THR
37	Sg	91	ASP
37	Sg	113	PHE
37	Sg	118	ARG
37	Sg	134	THR
37	Sg	155	ARG
37	Sg	160	SER
37	Sg	225	LYS
37	Sg	234	ASP
37	Sg	235	ILE
37	Sg	236	ILE

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Mol	Chain	Res	Type
37	Sg	246	TYR
37	Sg	271	LYS
37	Sg	285	GLN
38	LA	208	GLU
39	LB	141	ASP
39	LB	228	TYR
39	LB	300	LYS
39	LB	317	LEU
39	LB	358	ARG
39	LB	399	LYS
40	LC	122	TYR
40	LC	143	ARG
40	LC	336	ARG
40	LC	362	GLN
40	LC	364	LYS
41	LJ	85	LYS
41	LJ	88	LYS
42	LH	6	SER
42	LH	50	LYS
42	LH	53	LYS
42	LH	177	ASP
43	LE	39	LYS
43	LE	41	LYS
43	LE	56	ARG
43	LE	120	ASP
43	LE	123	ARG
43	LE	138	ARG
43	LE	210	LYS
43	LE	239	LYS
43	LE	251	LYS
44	LG	89	ARG
44	LG	175	ARG
44	LG	229	ARG
44	LG	231	ASP
44	LG	257	LYS
45	LO	116	LYS
45	LO	117	ARG
45	LO	191	LYS
46	LL	67	HIS
46	LL	105	LYS
46	LL	135	LYS
46	LL	136	LYS

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Mol	Chain	Res	Type
46	LL	138	ASP
46	LL	140	SER
46	LL	143	GLU
46	LL	158	ARG
46	LL	162	LYS
47	LV	48	ARG
48	LM	117	LYS
50	LN	10	LEU
50	LN	151	ILE
51	LI	21	ARG
51	LI	53	VAL
51	LI	101	LYS
51	LI	146	GLU
51	LI	188	LYS
52	LD	5	LYS
52	LD	85	LYS
52	LD	128	ASP
52	LD	202	GLN
52	LD	224	SER
52	LD	230	SER
52	LD	235	MET
52	LD	259	LYS
52	LD	263	LYS
53	LQ	14	ARG
53	LQ	17	GLU
53	LQ	19	LYS
53	LQ	92	VAL
53	LQ	172	ARG
54	LR	63	CYS
54	LR	111	GLU
54	LR	119	MET
54	LR	135	LYS
54	LR	151	ARG
54	LR	160	GLU
54	LR	167	LYS
54	LR	181	LYS
54	LR	183	GLU
56	LT	83	LYS
56	LT	107	LYS
56	LT	127	GLN
57	LP	46	LYS
57	LP	57	CYS

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Mol	Chain	Res	Type
57	LP	94	MET
57	LP	96	LYS
58	LU	52	LYS
58	LU	55	ASN
58	LU	69	LYS
58	LU	107	LYS
58	LU	108	GLU
59	LX	67	ARG
60	LY	46	SER
60	LY	66	GLN
60	LY	74	TYR
60	LY	112	ASP
60	LY	113	LYS
60	LY	121	ARG
60	LY	127	GLN
60	LY	130	LYS
61	LW	2	LYS
61	LW	77	LYS
62	LZ	64	LYS
62	LZ	100	VAL
62	LZ	102	ARG
62	LZ	120	GLU
65	Lb	25	ARG
65	Lb	33	LYS
65	Lb	63	LYS
66	LF	35	LYS
67	Lc	13	SER
67	Lc	92	CYS
71	Lg	28	ASN
71	Lg	73	HIS
72	Li	4	ARG
72	Li	18	THR
72	Li	103	LYS
73	Lj	20	ARG
73	Lj	63	ARG
74	Lk	59	SER
74	Lk	68	GLU
74	Lk	70	LYS
75	Ll	47	THR
78	Lo	27	LYS
78	Lo	79	SER
78	Lo	105	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
12	SF	83	ASN
17	SU	100	GLN
26	SR	48	ASN
31	SZ	106	GLN
57	LP	75	GLN
60	LY	18	HIS
60	LY	66	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	S2	1660/1869 (88%)	255 (15%)	1 (0%)
2	L8	155/156 (99%)	19 (12%)	0
3	L5	3528/5069 (69%)	504 (14%)	15 (0%)
4	L7	119/120 (99%)	8 (6%)	0
80	mR	7/60 (11%)	3 (42%)	0
81	Pt	76/77 (98%)	8 (10%)	0
All	All	5545/7351 (75%)	797 (14%)	16 (0%)

All (797) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	S2	3	C
1	S2	4	C
1	S2	17	C
1	S2	33	G
1	S2	41	G
1	S2	46	A
1	S2	56	G
1	S2	65	C
1	S2	67	C
1	S2	68	A
1	S2	74	G
1	S2	75	G
1	S2	76	U
1	S2	79	A
1	S2	92	A
1	S2	103	A
1	S2	113	G
1	S2	115	U

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Mol	Chain	Res	Type
1	S2	126	G
1	S2	127	C
1	S2	129	C
1	S2	140	C
1	S2	143	U
1	S2	147	A
1	S2	155	G
1	S2	162	C
1	S2	168	C
1	S2	184	G
1	S2	198	U
1	S2	199	C
1	S2	200	G
1	S2	201	C
1	S2	202	G
1	S2	203	G
1	S2	204	G
1	S2	207	G
1	S2	215	G
1	S2	309	G
1	S2	312	G
1	S2	319	C
1	S2	320	G
1	S2	323	C
1	S2	324	C
1	S2	327	G
1	S2	328	U
1	S2	335	G
1	S2	347	G
1	S2	362	C
1	S2	364	A
1	S2	370	G
1	S2	381	C
1	S2	385	G
1	S2	386	C
1	S2	407	G
1	S2	409	C
1	S2	438	G
1	S2	448	A
1	S2	449	A
1	S2	450	C
1	S2	465	A

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Mol	Chain	Res	Type
1	S2	466	G
1	S2	467	G
1	S2	472	C
1	S2	474	G
1	S2	476	A
1	S2	482	G
1	S2	487	U
1	S2	492	C
1	S2	493	A
1	S2	496	C
1	S2	508	A
1	S2	516	A
1	S2	523	A
1	S2	533	A
1	S2	534	G
1	S2	537	C
1	S2	540	U
1	S2	545	A
1	S2	546	G
1	S2	554	A
1	S2	555	A
1	S2	560	A
1	S2	563	G
1	S2	564	A
1	S2	570	C
1	S2	576	A2M
1	S2	587	A
1	S2	590	A2M
1	S2	591	U
1	S2	604	A
1	S2	606	G
1	S2	608	C
1	S2	614	C
1	S2	617	G
1	S2	620	G
1	S2	628	A
1	S2	632	C
1	S2	643	A
1	S2	644	OMG
1	S2	655	A
1	S2	660	C
1	S2	668	A2M

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Mol	Chain	Res	Type
1	S2	669	A
1	S2	671	A
1	S2	672	A
1	S2	673	G
1	S2	688	U
1	S2	800	U
1	S2	821	G
1	S2	822	PSU
1	S2	827	A
1	S2	830	A
1	S2	831	G
1	S2	836	G
1	S2	837	A
1	S2	838	G
1	S2	840	C
1	S2	847	A
1	S2	870	A
1	S2	872	A
1	S2	889	U
1	S2	891	G
1	S2	892	U
1	S2	895	G
1	S2	896	U
1	S2	897	U
1	S2	898	U
1	S2	903	A
1	S2	913	A
1	S2	917	U
1	S2	920	A
1	S2	922	A
1	S2	933	G
1	S2	943	U
1	S2	990	A
1	S2	992	A
1	S2	1017	U
1	S2	1023	A
1	S2	1027	A
1	S2	1055	A
1	S2	1061	U
1	S2	1062	A
1	S2	1083	A
1	S2	1085	C

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Mol	Chain	Res	Type
1	S2	1107	G
1	S2	1109	C
1	S2	1115	U
1	S2	1121	G
1	S2	1133	A
1	S2	1138	C
1	S2	1153	C
1	S2	1154	U
1	S2	1157	G
1	S2	1183	A
1	S2	1188	A
1	S2	1195	A
1	S2	1207	G
1	S2	1208	A
1	S2	1215	C
1	S2	1224	G
1	S2	1242	U
1	S2	1243	PSU
1	S2	1251	A
1	S2	1253	A
1	S2	1256	G
1	S2	1257	G
1	S2	1259	A
1	S2	1274	G
1	S2	1275	G
1	S2	1277	C
1	S2	1285	G
1	S2	1286	G
1	S2	1302	G
1	S2	1303	C
1	S2	1308	U
1	S2	1312	G
1	S2	1313	A
1	S2	1315	U
1	S2	1327	G
1	S2	1331	C
1	S2	1332	A
1	S2	1333	U
1	S2	1342	U
1	S2	1348	G
1	S2	1358	U
1	S2	1371	U

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Mol	Chain	Res	Type
1	S2	1372	U
1	S2	1378	A
1	S2	1402	A
1	S2	1406	G
1	S2	1419	C
1	S2	1420	G
1	S2	1421	A
1	S2	1422	G
1	S2	1423	C
1	S2	1433	C
1	S2	1435	C
1	S2	1437	C
1	S2	1438	A
1	S2	1439	A
1	S2	1442	OMU
1	S2	1454	A
1	S2	1463	U
1	S2	1466	G
1	S2	1489	A
1	S2	1490	OMG
1	S2	1498	A
1	S2	1521	C
1	S2	1522	A
1	S2	1531	A
1	S2	1533	A
1	S2	1547	C
1	S2	1556	A
1	S2	1557	C
1	S2	1560	U
1	S2	1563	G
1	S2	1579	A
1	S2	1580	A
1	S2	1581	C
1	S2	1582	C
1	S2	1585	U
1	S2	1586	U
1	S2	1587	G
1	S2	1588	A
1	S2	1601	A
1	S2	1606	G
1	S2	1621	U
1	S2	1623	A

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Mol	Chain	Res	Type
1	S2	1648	G
1	S2	1654	G
1	S2	1665	G
1	S2	1695	A
1	S2	1699	A
1	S2	1721	U
1	S2	1722	G
1	S2	1744	G
1	S2	1748	G
1	S2	1751	C
1	S2	1752	C
1	S2	1754	G
1	S2	1777	G
1	S2	1782	G
1	S2	1783	C
1	S2	1825	A
1	S2	1826	G
1	S2	1829	G
1	S2	1831	A
1	S2	1835	A
1	S2	1838	U
1	S2	1849	G
1	S2	1861	G
1	S2	1862	G
1	S2	1863	A
1	S2	1864	U
1	S2	1865	C
2	L8	34	U
2	L8	35	C
2	L8	59	A
2	L8	62	A
2	L8	63	U
2	L8	86	U
2	L8	87	G
2	L8	94	G
2	L8	103	A
2	L8	105	C
2	L8	109	C
2	L8	110	U
2	L8	114	G
2	L8	123	U
2	L8	124	U

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Mol	Chain	Res	Type
2	L8	125	C
2	L8	126	C
2	L8	127	U
2	L8	147	G
3	L5	2	G
3	L5	39	A
3	L5	42	A
3	L5	48	G
3	L5	59	A
3	L5	64	A
3	L5	65	A
3	L5	73	A
3	L5	85	G
3	L5	91	G
3	L5	98	A
3	L5	109	G
3	L5	110	C
3	L5	119	G
3	L5	120	A
3	L5	131	C
3	L5	132	G
3	L5	136	C
3	L5	140	G
3	L5	141	C
3	L5	142	G
3	L5	143	C
3	L5	159	C
3	L5	178	C
3	L5	179	G
3	L5	181	C
3	L5	184	U
3	L5	186	G
3	L5	187	U
3	L5	188	G
3	L5	189	G
3	L5	200	U
3	L5	209	U
3	L5	210	C
3	L5	218	A
3	L5	219	G
3	L5	233	U
3	L5	234	G

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Mol	Chain	Res	Type
3	L5	253	G
3	L5	256	G
3	L5	257	C
3	L5	259	C
3	L5	262	G
3	L5	266	C
3	L5	272	U
3	L5	280	G
3	L5	297	U
3	L5	306	A
3	L5	315	G
3	L5	316	U
3	L5	340	C
3	L5	349	A
3	L5	387	G
3	L5	409	G
3	L5	410	A
3	L5	412	G
3	L5	413	G
3	L5	432	U
3	L5	440	U
3	L5	449	C
3	L5	450	G
3	L5	451	C
3	L5	453	G
3	L5	454	U
3	L5	455	C
3	L5	461	G
3	L5	467	U
3	L5	484	U
3	L5	485	C
3	L5	486	C
3	L5	489	C
3	L5	496	G
3	L5	499	G
3	L5	504	G
3	L5	509	A
3	L5	510	U
3	L5	513	U
3	L5	514	U
3	L5	644	G
3	L5	659	G

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Mol	Chain	Res	Type
3	L5	663	G
3	L5	666	G
3	L5	667	A
3	L5	668	C
3	L5	669	C
3	L5	686	A
3	L5	687	U
3	L5	692	A
3	L5	696	C
3	L5	697	G
3	L5	704	C
3	L5	705	G
3	L5	730	G
3	L5	731	G
3	L5	738	C
3	L5	739	G
3	L5	740	G
3	L5	742	G
3	L5	757	G
3	L5	759	G
3	L5	904	C
3	L5	914	U
3	L5	915	A
3	L5	916	C
3	L5	917	A
3	L5	925	C
3	L5	926	G
3	L5	932	A
3	L5	933	G
3	L5	936	C
3	L5	943	A
3	L5	944	A
3	L5	945	U
3	L5	959	G
3	L5	960	A
3	L5	961	G
3	L5	962	C
3	L5	964	A
3	L5	965	G
3	L5	967	C
3	L5	968	C
3	L5	969	C

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Mol	Chain	Res	Type
3	L5	970	G
3	L5	1065	G
3	L5	1072	C
3	L5	1073	G
3	L5	1080	C
3	L5	1081	C
3	L5	1094	G
3	L5	1098	G
3	L5	1099	C
3	L5	1101	C
3	L5	1170	G
3	L5	1182	C
3	L5	1183	C
3	L5	1187	G
3	L5	1199	G
3	L5	1200	G
3	L5	1210	C
3	L5	1211	G
3	L5	1215	C
3	L5	1216	C
3	L5	1241	C
3	L5	1253	G
3	L5	1254	A
3	L5	1257	A
3	L5	1258	G
3	L5	1266	G
3	L5	1270	A
3	L5	1272	C
3	L5	1273	G
3	L5	1279	A
3	L5	1280	C
3	L5	1284	G
3	L5	1285	U
3	L5	1287	G
3	L5	1293	G
3	L5	1302	U
3	L5	1303	A
3	L5	1313	C
3	L5	1326	A2M
3	L5	1337	A
3	L5	1354	A
3	L5	1359	G

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Mol	Chain	Res	Type
3	L5	1366	G
3	L5	1378	C
3	L5	1387	A
3	L5	1397	A
3	L5	1398	A
3	L5	1399	G
3	L5	1410	U
3	L5	1411	C
3	L5	1413	C
3	L5	1414	C
3	L5	1415	G
3	L5	1420	A
3	L5	1435	G
3	L5	1438	U
3	L5	1439	C
3	L5	1443	A
3	L5	1444	G
3	L5	1445	U
3	L5	1446	C
3	L5	1447	C
3	L5	1448	G
3	L5	1498	G
3	L5	1502	G
3	L5	1534	A2M
3	L5	1547	A
3	L5	1566	C
3	L5	1578	U
3	L5	1591	U
3	L5	1596	U
3	L5	1614	C
3	L5	1624	G
3	L5	1625	OMG
3	L5	1631	A
3	L5	1633	G
3	L5	1634	A
3	L5	1638	A
3	L5	1640	C
3	L5	1642	A
3	L5	1654	G
3	L5	1661	C
3	L5	1676	C
3	L5	1677	PSU

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Mol	Chain	Res	Type
3	L5	1697	G
3	L5	1699	A
3	L5	1701	A
3	L5	1703	C
3	L5	1719	A
3	L5	1721	G
3	L5	1734	G
3	L5	1740	C
3	L5	1750	G
3	L5	1755	C
3	L5	1761	G
3	L5	1764	G
3	L5	1765	A
3	L5	1766	A
3	L5	1768	C
3	L5	1775	A
3	L5	1787	A
3	L5	1789	C
3	L5	1804	A
3	L5	1815	G
3	L5	1836	G
3	L5	1837	A
3	L5	1842	G
3	L5	1843	A
3	L5	1855	G
3	L5	1869	G
3	L5	1882	U
3	L5	1897	A
3	L5	1918	U
3	L5	1919	G
3	L5	1920	C
3	L5	1921	C
3	L5	1922	G
3	L5	1925	G
3	L5	1931	C
3	L5	1932	A
3	L5	1940	G
3	L5	1941	A
3	L5	1948	G
3	L5	1961	G
3	L5	1966	C
3	L5	1969	G

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Mol	Chain	Res	Type
3	L5	1970	A
3	L5	2022	C
3	L5	2024	G
3	L5	2025	A
3	L5	2026	A
3	L5	2042	A
3	L5	2046	G
3	L5	2048	U
3	L5	2055	G
3	L5	2069	A
3	L5	2084	C
3	L5	2092	G
3	L5	2093	A
3	L5	2095	A
3	L5	2096	G
3	L5	2097	U
3	L5	2098	G
3	L5	2099	G
3	L5	2100	A
3	L5	2101	C
3	L5	2102	G
3	L5	2103	G
3	L5	2106	G
3	L5	2107	C
3	L5	2289	C
3	L5	2300	A
3	L5	2301	G
3	L5	2313	A
3	L5	2314	G
3	L5	2333	G
3	L5	2348	G
3	L5	2351	OMC
3	L5	2360	A
3	L5	2395	A
3	L5	2397	G
3	L5	2417	A
3	L5	2421	G
3	L5	2470	C
3	L5	2471	G
3	L5	2474	G
3	L5	2475	G
3	L5	2478	C

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Mol	Chain	Res	Type
3	L5	2479	G
3	L5	2483	G
3	L5	2488	C
3	L5	2490	U
3	L5	2503	G
3	L5	2504	C
3	L5	2505	C
3	L5	2506	G
3	L5	2513	A
3	L5	2519	U
3	L5	2520	C
3	L5	2554	U
3	L5	2559	G
3	L5	2565	A
3	L5	2567	G
3	L5	2573	A
3	L5	2583	C
3	L5	2587	A
3	L5	2589	C
3	L5	2601	A
3	L5	2627	C
3	L5	2653	C
3	L5	2660	A
3	L5	2662	G
3	L5	2669	C
3	L5	2687	U
3	L5	2694	G
3	L5	2695	A
3	L5	2696	A
3	L5	2708	U
3	L5	2710	C
3	L5	2711	G
3	L5	2735	G
3	L5	2739	C
3	L5	2742	G
3	L5	2743	A
3	L5	2761	U
3	L5	2764	A
3	L5	2770	C
3	L5	2788	U
3	L5	2790	U
3	L5	2798	A

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Mol	Chain	Res	Type
3	L5	2814	C
3	L5	2815	A2M
3	L5	2826	U
3	L5	2827	G
3	L5	2829	U
3	L5	2855	G
3	L5	2877	G
3	L5	2899	C
3	L5	3597	G
3	L5	3615	G
3	L5	3618	C
3	L5	3626	G
3	L5	3635	A
3	L5	3644	U
3	L5	3662	A
3	L5	3673	C
3	L5	3711	A
3	L5	3712	A
3	L5	3714	G
3	L5	3748	A
3	L5	3753	G
3	L5	3754	G
3	L5	3760	A2M
3	L5	3776	G
3	L5	3777	G
3	L5	3783	A
3	L5	3784	A
3	L5	3785	A2M
3	L5	3811	G
3	L5	3814	U
3	L5	3817	A
3	L5	3819	G
3	L5	3838	U
3	L5	3839	G
3	L5	3840	U
3	L5	3877	A
3	L5	3878	C
3	L5	3879	G
3	L5	3897	G
3	L5	3901	A
3	L5	3906	A
3	L5	3907	G

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Mol	Chain	Res	Type
3	L5	3915	U
3	L5	3945	A
3	L5	3946	G
3	L5	4066	U
3	L5	4076	G
3	L5	4096	C
3	L5	4097	G
3	L5	4102	C
3	L5	4103	C
3	L5	4105	A
3	L5	4106	G
3	L5	4111	U
3	L5	4119	C
3	L5	4122	G
3	L5	4127	A
3	L5	4140	C
3	L5	4141	G
3	L5	4142	C
3	L5	4145	C
3	L5	4151	G
3	L5	4158	C
3	L5	4162	C
3	L5	4163	U
3	L5	4164	C
3	L5	4170	A
3	L5	4177	C
3	L5	4183	G
3	L5	4184	G
3	L5	4191	G
3	L5	4203	A
3	L5	4221	C
3	L5	4222	G
3	L5	4229	U
3	L5	4233	A
3	L5	4251	A
3	L5	4254	G
3	L5	4266	G
3	L5	4268	A
3	L5	4273	A
3	L5	4281	A
3	L5	4291	G
3	L5	4305	G

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Mol	Chain	Res	Type
3	L5	4314	C
3	L5	4329	G
3	L5	4330	G
3	L5	4332	C
3	L5	4339	A
3	L5	4373	G
3	L5	4376	A
3	L5	4377	G
3	L5	4378	A
3	L5	4387	C
3	L5	4391	G
3	L5	4394	A
3	L5	4420	PSU
3	L5	4422	A
3	L5	4448	G
3	L5	4453	C
3	L5	4464	A
3	L5	4465	U
3	L5	4500	PSU
3	L5	4512	U
3	L5	4513	A
3	L5	4515	G
3	L5	4519	C
3	L5	4524	G
3	L5	4548	A
3	L5	4560	C
3	L5	4567	G
3	L5	4573	G
3	L5	4575	G
3	L5	4584	A
3	L5	4590	A2M
3	L5	4600	G
3	L5	4636	PSU
3	L5	4637	OMG
3	L5	4656	A
3	L5	4670	C
3	L5	4672	A
3	L5	4700	A
3	L5	4708	A
3	L5	4709	U
3	L5	4719	G
3	L5	4720	C

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Mol	Chain	Res	Type
3	L5	4730	C
3	L5	4731	G
3	L5	4732	G
3	L5	4733	C
3	L5	4734	A
3	L5	4740	G
3	L5	4741	C
3	L5	4742	G
3	L5	4743	G
3	L5	4745	G
3	L5	4750	G
3	L5	4754	G
3	L5	4757	C
3	L5	4759	C
3	L5	4761	G
3	L5	4765	G
3	L5	4771	C
3	L5	4772	C
3	L5	4773	C
3	L5	4860	G
3	L5	4870	G
3	L5	4871	C
3	L5	4882	U
3	L5	4883	C
3	L5	4889	G
3	L5	4895	C
3	L5	4900	C
3	L5	4901	G
3	L5	4903	G
3	L5	4910	G
3	L5	4912	G
3	L5	4913	G
3	L5	4921	C
3	L5	4938	A
3	L5	4943	A
3	L5	4944	C
3	L5	4976	U
3	L5	4988	U
3	L5	4989	U
3	L5	4990	C
3	L5	4991	U
3	L5	5017	G

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Mol	Chain	Res	Type
3	L5	5041	G
3	L5	5050	C
3	L5	5062	G
3	L5	5069	U
4	L7	33	U
4	L7	53	U
4	L7	54	A
4	L7	64	G
4	L7	97	G
4	L7	100	A
4	L7	110	G
4	L7	120	U
80	mR	33	A
80	mR	34	C
80	mR	36	U
81	Pt	2	G
81	Pt	9	G
81	Pt	16	C
81	Pt	19	G
81	Pt	21	H2U
81	Pt	47	G7M
81	Pt	76	C
81	Pt	77	A

All (16) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	S2	1520	G
3	L5	667	A
3	L5	704	C
3	L5	739	G
3	L5	1302	U
3	L5	1590	C
3	L5	1613	A
3	L5	1633	G
3	L5	1754	U
3	L5	1765	A
3	L5	2095	A
3	L5	2097	U
3	L5	2489	C
3	L5	3876	A
3	L5	4699	U

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Mol	Chain	Res	Type
3	L5	4990	C

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

233 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	$\#\|Z\| > 2$
3	A2M	L5	398	3	18,25,26	1.02	1 (5%)	18,36,39	1.25	2 (11%)
3	PSU	L5	1536	3	18,21,22	1.42	3 (16%)	22,30,33	1.97	3 (13%)
1	PSU	S2	109	1	18,21,22	1.36	3 (16%)	22,30,33	1.89	3 (13%)
1	OMG	S2	601	1	18,26,27	0.92	1 (5%)	19,38,41	1.02	2 (10%)
1	OMG	S2	644	1	18,26,27	0.94	1 (5%)	19,38,41	1.10	2 (10%)
3	OMG	L5	1625	3,84	18,26,27	0.96	1 (5%)	19,38,41	1.06	2 (10%)
3	PSU	L5	4423	3	18,21,22	1.39	3 (16%)	22,30,33	1.95	4 (18%)
3	PSU	L5	4431	3	18,21,22	1.42	3 (16%)	22,30,33	1.89	3 (13%)
1	PSU	S2	572	1	18,21,22	1.34	2 (11%)	22,30,33	1.92	4 (18%)
81	OMC	Pt	33	81	19,22,23	0.80	0	26,31,34	0.76	0
1	A2M	S2	668	85,1	18,25,26	0.93	1 (5%)	18,36,39	1.35	3 (16%)
1	PSU	S2	651	1	18,21,22	1.36	2 (11%)	22,30,33	1.92	4 (18%)
1	PSU	S2	866	1	18,21,22	1.35	2 (11%)	22,30,33	1.94	3 (13%)
1	PSU	S2	801	1	18,21,22	1.34	3 (16%)	22,30,33	1.90	4 (18%)
3	PSU	L5	4493	3,84	18,21,22	1.41	3 (16%)	22,30,33	1.91	3 (13%)
3	PSU	L5	4628	3	18,21,22	1.38	4 (22%)	22,30,33	1.84	3 (13%)
1	OMU	S2	1804	1	19,22,23	1.21	2 (10%)	26,31,34	1.75	5 (19%)
1	OMG	S2	683	1	18,26,27	0.93	1 (5%)	19,38,41	1.13	2 (10%)
3	A2M	L5	1524	3	18,25,26	0.95	1 (5%)	18,36,39	1.29	2 (11%)
3	UY1	L5	3818	3,84	19,22,23	1.38	3 (15%)	22,31,34	2.05	4 (18%)
3	PSU	L5	1779	3	18,21,22	1.37	3 (16%)	22,30,33	1.94	3 (13%)
3	OMC	L5	2351	3,85	19,22,23	0.81	0	26,31,34	0.96	1 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	A2M	S2	1031	1	18,25,26	0.94	1 (5%)	18,36,39	1.34	3 (16%)
3	PSU	L5	3853	3,85,84	18,21,22	1.39	3 (16%)	22,30,33	1.93	3 (13%)
3	OMG	L5	3627	3	18,26,27	0.91	1 (5%)	19,38,41	1.22	3 (15%)
1	PSU	S2	815	1	18,21,22	1.35	2 (11%)	22,30,33	1.89	3 (13%)
29	AME	SV	1	29	9,10,11	3.34	2 (22%)	9,11,13	4.28	5 (55%)
3	A2M	L5	3760	3,85	18,25,26	1.04	1 (5%)	18,36,39	1.28	2 (11%)
3	OMU	L5	4227	3	19,22,23	1.24	3 (15%)	26,31,34	1.78	5 (19%)
3	A2M	L5	2787	3,85	18,25,26	1.01	1 (5%)	18,36,39	1.35	2 (11%)
1	OMU	S2	1288	1	19,22,23	1.25	4 (21%)	26,31,34	1.67	5 (19%)
1	PSU	S2	1136	1	18,21,22	1.36	2 (11%)	22,30,33	1.91	4 (18%)
3	PSU	L5	4579	3	18,21,22	1.38	3 (16%)	22,30,33	1.90	3 (13%)
1	OMU	S2	428	1	19,22,23	1.18	3 (15%)	26,31,34	1.72	5 (19%)
6	SAC	SA	2	6	7,8,9	3.78	2 (28%)	8,9,11	4.49	4 (50%)
3	A2M	L5	2363	3,85	18,25,26	0.93	1 (5%)	18,36,39	1.21	2 (11%)
3	PSU	L5	3762	3	18,21,22	1.36	2 (11%)	22,30,33	1.91	3 (13%)
3	PSU	L5	5001	3,85	18,21,22	1.42	3 (16%)	22,30,33	1.87	3 (13%)
1	OMG	S2	436	1	18,26,27	0.93	1 (5%)	19,38,41	1.09	2 (10%)
3	PSU	L5	2508	3	18,21,22	1.35	3 (16%)	22,30,33	1.94	4 (18%)
3	PSU	L5	3770	3	18,21,22	1.53	5 (27%)	22,30,33	2.00	5 (22%)
3	OMC	L5	2861	3	19,22,23	0.79	0	26,31,34	0.68	0
3	PSU	L5	4420	3	18,21,22	1.45	3 (16%)	22,30,33	1.87	3 (13%)
3	OMC	L5	3869	3	19,22,23	0.81	0	26,31,34	0.75	0
3	OMC	L5	3701	3,84	19,22,23	0.80	0	26,31,34	0.86	0
1	4AC	S2	1337	1	21,24,25	1.08	2 (9%)	29,34,37	1.01	2 (6%)
3	PSU	L5	4972	3,84	18,21,22	1.39	3 (16%)	22,30,33	1.91	3 (13%)
1	OMU	S2	121	1	19,22,23	1.21	3 (15%)	26,31,34	1.72	5 (19%)
3	OMC	L5	2804	3	19,22,23	0.80	0	26,31,34	0.63	0
3	A2M	L5	3718	3	18,25,26	0.96	1 (5%)	18,36,39	1.10	2 (11%)
3	OMC	L5	2824	3	19,22,23	0.81	0	26,31,34	0.77	0
49	V5N	La	39	49	4,11,12	0.64	0	5,14,16	1.68	1 (20%)
3	PSU	L5	4552	3	18,21,22	1.39	3 (16%)	22,30,33	1.91	3 (13%)
3	PSU	L5	4636	3,85	18,21,22	1.41	3 (16%)	22,30,33	1.88	4 (18%)
1	PSU	S2	36	1	18,21,22	1.35	2 (11%)	22,30,33	1.93	3 (13%)
3	PSU	L5	3851	3	18,21,22	1.42	3 (16%)	22,30,33	1.90	3 (13%)
3	PSU	L5	1862	3	18,21,22	1.36	3 (16%)	22,30,33	1.98	4 (18%)
3	OMG	L5	2364	3	18,26,27	0.92	1 (5%)	19,38,41	1.07	2 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
3	OMC	L5	3808	3	19,22,23	0.79	0	26,31,34	0.71	0
1	PSU	S2	1004	1	18,21,22	1.35	2 (11%)	22,30,33	1.90	3 (13%)
3	6MZ	L5	4220	3	18,25,26	0.82	1 (5%)	16,36,39	2.02	4 (25%)
1	PSU	S2	34	1	18,21,22	1.37	2 (11%)	22,30,33	1.91	3 (13%)
3	PSU	L5	3768	3	18,21,22	1.36	2 (11%)	22,30,33	1.92	3 (13%)
3	PSU	L5	1582	3	18,21,22	1.42	3 (16%)	22,30,33	1.92	3 (13%)
3	OMG	L5	4499	3	18,26,27	0.93	1 (5%)	19,38,41	1.04	2 (10%)
3	UR3	L5	4530	3	19,22,23	0.92	0	26,32,35	1.62	2 (7%)
76	M3L	Lm	98	76	10,11,12	0.50	0	9,14,16	0.46	0
1	PSU	S2	406	1	18,21,22	1.37	3 (16%)	22,30,33	1.93	3 (13%)
3	PSU	L5	3734	3	18,21,22	1.34	2 (11%)	22,30,33	1.90	3 (13%)
1	PSU	S2	822	1	18,21,22	1.37	3 (16%)	22,30,33	1.95	4 (18%)
81	PSU	Pt	56	81	18,21,22	1.33	2 (11%)	22,30,33	1.89	3 (13%)
1	OMC	S2	1703	85,1	19,22,23	0.79	0	26,31,34	0.70	0
3	PSU	L5	4293	3	18,21,22	1.35	3 (16%)	22,30,33	1.90	3 (13%)
65	MLZ	Lb	5	65,84	8,9,10	0.81	0	4,9,11	0.67	0
1	MA6	S2	1851	85,1	19,26,27	0.88	1 (5%)	18,38,41	1.42	2 (11%)
1	OMC	S2	462	1	19,22,23	0.87	0	26,31,34	0.95	1 (3%)
3	A2M	L5	2815	3,85	18,25,26	0.95	1 (5%)	18,36,39	1.17	2 (11%)
1	A2M	S2	468	1	18,25,26	0.99	1 (5%)	18,36,39	1.22	2 (11%)
3	PSU	L5	4296	3	18,21,22	1.41	3 (16%)	22,30,33	1.98	3 (13%)
3	OMG	L5	2424	3	18,26,27	0.95	1 (5%)	19,38,41	1.02	2 (10%)
1	A2M	S2	159	1	18,25,26	1.01	1 (5%)	18,36,39	1.26	2 (11%)
3	A2M	L5	3785	3	18,25,26	0.89	0	18,36,39	1.54	3 (16%)
3	OMU	L5	2837	3	19,22,23	1.25	3 (15%)	26,31,34	1.79	5 (19%)
1	A2M	S2	590	1	18,25,26	1.03	1 (5%)	18,36,39	1.20	2 (11%)
3	OMC	L5	1340	3	19,22,23	0.79	0	26,31,34	0.72	0
3	PSU	L5	4353	3	18,21,22	1.39	3 (16%)	22,30,33	1.90	4 (18%)
3	PSU	L5	1744	3,84	18,21,22	1.39	3 (16%)	22,30,33	1.88	3 (13%)
3	PSU	L5	4403	3,84	18,21,22	1.39	3 (16%)	22,30,33	1.98	4 (18%)
3	PSU	L5	3920	3,85	18,21,22	1.37	3 (16%)	22,30,33	1.97	4 (18%)
1	OMU	S2	627	1	19,22,23	1.18	2 (10%)	26,31,34	1.73	5 (19%)
3	PSU	L5	4689	3	18,21,22	1.38	3 (16%)	22,30,33	1.91	3 (13%)
1	PSU	S2	1625	1	18,21,22	1.37	2 (11%)	22,30,33	1.86	3 (13%)
3	PSU	L5	4457	3	18,21,22	1.34	3 (16%)	22,30,33	2.00	3 (13%)
81	4SU	Pt	8	81	18,21,22	1.73	4 (22%)	26,30,33	2.18	4 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	PSU	S2	1445	1	18,21,22	1.33	2 (11%)	22,30,33	1.94	4 (18%)
1	PSU	S2	296	1	18,21,22	1.34	2 (11%)	22,30,33	1.90	3 (13%)
3	OMC	L5	1881	3,85	19,22,23	0.80	0	26,31,34	0.93	0
3	PSU	L5	1860	3	18,21,22	1.41	3 (16%)	22,30,33	1.89	3 (13%)
3	1MA	L5	1322	3,85	16,25,26	1.35	2 (12%)	18,37,40	1.08	2 (11%)
1	PSU	S2	863	1	18,21,22	1.37	2 (11%)	22,30,33	1.93	3 (13%)
1	G7M	S2	1639	81,1	20,26,27	2.60	4 (20%)	17,39,42	0.93	1 (5%)
1	4AC	S2	1842	1	21,24,25	1.00	1 (4%)	29,34,37	1.11	3 (10%)
3	OMC	L5	2422	3,85	19,22,23	0.82	0	26,31,34	0.68	0
3	PSU	L5	4531	3	18,21,22	1.31	3 (16%)	22,30,33	1.99	5 (22%)
1	UY1	S2	1326	85,1	19,22,23	1.31	2 (10%)	22,31,34	1.89	4 (18%)
3	PSU	L5	5010	3	18,21,22	1.36	3 (16%)	22,30,33	1.90	3 (13%)
1	OMU	S2	116	1	19,22,23	1.18	3 (15%)	26,31,34	1.69	5 (19%)
1	PSU	S2	681	1	18,21,22	1.40	3 (16%)	22,30,33	1.92	4 (18%)
3	PSU	L5	3715	3	18,21,22	1.36	3 (16%)	22,30,33	1.92	3 (13%)
1	OMG	S2	867	1	18,26,27	0.91	1 (5%)	19,38,41	1.09	2 (10%)
1	PSU	S2	918	1	18,21,22	1.43	2 (11%)	22,30,33	1.86	3 (13%)
3	PSU	L5	4312	3,85	18,21,22	1.38	3 (16%)	22,30,33	1.89	3 (13%)
3	PSU	L5	3884	3	18,21,22	1.38	3 (16%)	22,30,33	1.78	4 (18%)
78	MLZ	Lo	53	78	8,9,10	0.74	0	4,9,11	0.61	0
3	PSU	L5	3758	3	18,21,22	1.36	3 (16%)	22,30,33	1.90	3 (13%)
3	OMU	L5	3925	3	19,22,23	1.27	3 (15%)	26,31,34	1.79	5 (19%)
3	5MC	L5	3782	3,85	18,22,23	0.96	2 (11%)	26,32,35	1.16	2 (7%)
3	OMU	L5	4306	3	19,22,23	1.26	3 (15%)	26,31,34	1.66	4 (15%)
3	PSU	L5	1792	3,84	18,21,22	1.34	3 (16%)	22,30,33	1.94	4 (18%)
3	OMG	L5	4637	3,84	18,26,27	0.95	1 (5%)	19,38,41	1.09	2 (10%)
1	PSU	S2	1177	1	18,21,22	1.37	3 (16%)	22,30,33	1.94	4 (18%)
1	A2M	S2	484	1	18,25,26	0.99	1 (5%)	18,36,39	1.23	2 (11%)
1	PSU	S2	1174	85,1	18,21,22	1.39	3 (16%)	22,30,33	1.89	3 (13%)
3	OMC	L5	4456	3	19,22,23	0.81	0	26,31,34	0.75	1 (3%)
81	H2U	Pt	21	81	18,21,22	0.95	2 (11%)	21,30,33	1.42	2 (9%)
38	V5N	LA	216	38	4,11,12	0.68	0	5,14,16	1.63	2 (40%)
1	OMU	S2	354	1	19,22,23	1.24	3 (15%)	26,31,34	1.75	5 (19%)
3	OMG	L5	1316	3	18,26,27	0.93	1 (5%)	19,38,41	1.07	1 (5%)
3	PSU	L5	1781	3	18,21,22	1.37	3 (16%)	22,30,33	1.88	3 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	PSU	S2	814	1	18,21,22	1.35	3 (16%)	22,30,33	1.85	3 (13%)
3	PSU	L5	4673	3,85	18,21,22	1.39	3 (16%)	22,30,33	1.97	3 (13%)
1	PSU	S2	1056	1	18,21,22	1.34	2 (11%)	22,30,33	1.94	4 (18%)
1	A2M	S2	27	85,1	18,25,26	1.01	1 (5%)	18,36,39	1.16	2 (11%)
3	PSU	L5	4532	3	18,21,22	1.49	3 (16%)	22,30,33	2.20	4 (18%)
3	OMC	L5	2365	3,85	19,22,23	0.78	0	26,31,34	0.76	0
3	PSU	L5	4442	3	18,21,22	1.37	3 (16%)	22,30,33	1.96	5 (22%)
1	OMC	S2	517	1	19,22,23	0.80	0	26,31,34	0.77	0
3	OMU	L5	4498	3,84	19,22,23	1.24	3 (15%)	26,31,34	1.71	5 (19%)
3	OMC	L5	3841	3	19,22,23	0.79	0	26,31,34	0.66	0
3	PSU	L5	1677	3	18,21,22	1.43	4 (22%)	22,30,33	1.93	3 (13%)
3	PSU	L5	3729	3	18,21,22	1.37	3 (16%)	22,30,33	1.94	3 (13%)
1	PSU	S2	1239	1	18,21,22	1.36	2 (11%)	22,30,33	1.90	3 (13%)
81	G7M	Pt	47	81	20,26,27	2.42	3 (15%)	17,39,42	0.63	0
3	OMG	L5	4623	3	18,26,27	0.91	1 (5%)	19,38,41	1.16	2 (10%)
2	OMU	L8	14	3,2,84	19,22,23	1.25	2 (10%)	26,31,34	1.66	5 (19%)
3	A2M	L5	3867	3	18,25,26	0.96	1 (5%)	18,36,39	1.30	3 (16%)
3	PSU	L5	4361	3	18,21,22	1.39	3 (16%)	22,30,33	1.88	3 (13%)
1	A2M	S2	99	85,1	18,25,26	1.01	1 (5%)	18,36,39	1.18	2 (11%)
1	PSU	S2	93	1	18,21,22	1.37	2 (11%)	22,30,33	1.89	3 (13%)
3	OMU	L5	4620	3	19,22,23	1.26	3 (15%)	26,31,34	1.73	5 (19%)
1	PSU	S2	686	1	18,21,22	1.37	2 (11%)	22,30,33	1.93	3 (13%)
1	OMU	S2	1442	85,1	19,22,23	1.21	3 (15%)	26,31,34	1.70	4 (15%)
3	OMC	L5	4536	3	19,22,23	0.78	0	26,31,34	0.80	0
3	PSU	L5	3639	3	18,21,22	1.40	3 (16%)	22,30,33	1.89	3 (13%)
3	PSU	L5	4521	3,85,84	18,21,22	1.41	3 (16%)	22,30,33	1.93	5 (22%)
3	PSU	L5	4471	3,85	18,21,22	1.39	3 (16%)	22,30,33	1.94	4 (18%)
3	OMC	L5	3887	3,85	19,22,23	0.82	0	26,31,34	0.78	0
1	PSU	S2	1367	1	18,21,22	1.35	2 (11%)	22,30,33	1.90	3 (13%)
1	PSU	S2	649	1	18,21,22	1.36	2 (11%)	22,30,33	1.94	3 (13%)
3	OMG	L5	3792	3	18,26,27	0.93	1 (5%)	19,38,41	1.05	3 (15%)
1	PSU	S2	1232	1	18,21,22	1.38	2 (11%)	22,30,33	1.92	3 (13%)
3	PSU	L5	2839	3	18,21,22	1.42	3 (16%)	22,30,33	1.99	4 (18%)
3	A2M	L5	1534	3,85	18,25,26	0.98	1 (5%)	18,36,39	1.41	3 (16%)
3	PSU	L5	3695	3,84	18,21,22	1.38	3 (16%)	22,30,33	1.89	4 (18%)
3	OMG	L5	3744	3	18,26,27	0.92	1 (5%)	19,38,41	1.07	2 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
3	A2M	L5	3830	3	18,25,26	0.98	1 (5%)	18,36,39	1.20	2 (11%)
3	OMG	L5	4196	3,81	18,26,27	0.94	1 (5%)	19,38,41	1.06	2 (10%)
3	A2M	L5	4590	3	18,25,26	0.98	1 (5%)	18,36,39	1.37	3 (16%)
1	A2M	S2	1678	1	18,25,26	1.03	1 (5%)	18,36,39	1.25	2 (11%)
1	PSU	S2	218	1	18,21,22	1.36	2 (11%)	22,30,33	1.87	4 (18%)
3	A2M	L5	3825	3	18,25,26	0.92	1 (5%)	18,36,39	1.22	2 (11%)
1	PSU	S2	966	1	18,21,22	1.36	3 (16%)	22,30,33	1.87	3 (13%)
3	A2M	L5	4523	3,85	18,25,26	0.95	1 (5%)	18,36,39	1.29	2 (11%)
1	OMG	S2	1447	1	18,26,27	0.96	1 (5%)	19,38,41	1.09	2 (10%)
3	OMG	L5	3944	3	18,26,27	0.92	1 (5%)	19,38,41	1.10	2 (10%)
3	OMG	L5	4618	3,84	18,26,27	0.91	1 (5%)	19,38,41	1.12	2 (10%)
20	HY3	SX	62	20	6,8,9	1.35	1 (16%)	5,10,12	1.33	1 (20%)
1	A2M	S2	576	1	18,25,26	0.98	1 (5%)	18,36,39	1.26	2 (11%)
3	OMG	L5	2876	3	18,26,27	0.96	1 (5%)	19,38,41	1.03	2 (10%)
3	A2M	L5	1326	3	18,25,26	1.00	1 (5%)	18,36,39	1.18	2 (11%)
3	OMG	L5	4392	3	18,26,27	0.94	1 (5%)	19,38,41	1.08	2 (10%)
3	A2M	L5	2401	3,85	18,25,26	0.98	1 (5%)	18,36,39	1.19	2 (11%)
1	OMG	S2	509	85,1	18,26,27	0.94	1 (5%)	19,38,41	1.07	2 (10%)
1	PSU	S2	1081	1	18,21,22	1.44	4 (22%)	22,30,33	1.90	3 (13%)
3	A2M	L5	1871	3,85	18,25,26	0.96	1 (5%)	18,36,39	1.36	3 (16%)
1	B8N	S2	1248	1	24,29,30	0.94	1 (4%)	29,42,45	1.54	5 (17%)
3	PSU	L5	1782	3	18,21,22	1.38	3 (16%)	22,30,33	1.92	3 (13%)
1	PSU	S2	609	1	18,21,22	1.35	2 (11%)	22,30,33	1.90	3 (13%)
3	A2M	L5	3723	3	18,25,26	0.99	1 (5%)	18,36,39	1.21	2 (11%)
1	PSU	S2	573	1	18,21,22	1.36	2 (11%)	22,30,33	1.88	3 (13%)
1	PSU	S2	1692	1	18,21,22	1.38	3 (16%)	22,30,33	1.92	3 (13%)
1	A2M	S2	512	1	18,25,26	0.98	1 (5%)	18,36,39	1.25	2 (11%)
1	OMC	S2	174	85,1	19,22,23	0.80	0	26,31,34	0.81	0
3	OMG	L5	1522	3	18,26,27	0.91	1 (5%)	19,38,41	1.20	3 (15%)
3	PSU	L5	2632	3	18,21,22	1.40	4 (22%)	22,30,33	1.84	3 (13%)
3	A2M	L5	400	3	18,25,26	0.98	1 (5%)	18,36,39	1.21	2 (11%)
1	OMC	S2	1391	1	19,22,23	0.83	0	26,31,34	0.79	0
1	OMG	S2	1490	85,1	18,26,27	0.93	1 (5%)	19,38,41	1.06	2 (10%)
3	PSU	L5	4299	3	18,21,22	1.38	3 (16%)	22,30,33	1.95	3 (13%)
3	A2M	L5	4571	3	18,25,26	1.01	1 (5%)	18,36,39	1.20	2 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	A2M	S2	166	1	18,25,26	1.01	1 (5%)	18,36,39	1.25	2 (11%)
1	PSU	S2	1244	1	18,21,22	1.35	2 (11%)	22,30,33	1.95	3 (13%)
1	OMG	S2	1328	1	18,26,27	0.94	1 (5%)	19,38,41	1.04	2 (10%)
3	PSU	L5	2843	3	18,21,22	1.37	3 (16%)	22,30,33	1.91	5 (22%)
3	A2M	L5	3724	3	18,25,26	0.99	1 (5%)	18,36,39	1.18	2 (11%)
3	PSU	L5	3764	3,85	18,21,22	1.37	3 (16%)	22,30,33	1.91	3 (13%)
3	OMG	L5	4228	3	18,26,27	0.87	1 (5%)	19,38,41	1.21	2 (10%)
1	PSU	S2	1238	1	18,21,22	1.35	2 (11%)	22,30,33	1.93	4 (18%)
39	HIC	LB	245	39	8,11,12	1.52	2 (25%)	6,14,16	1.06	0
1	A2M	S2	1383	1	18,25,26	1.00	1 (5%)	18,36,39	1.28	2 (11%)
3	PSU	L5	4500	3,85	18,21,22	1.37	2 (11%)	22,30,33	1.98	3 (13%)
3	PSU	L5	3844	3	18,21,22	1.45	3 (16%)	22,30,33	1.91	3 (13%)
3	PSU	L5	3637	3,84	18,21,22	1.42	3 (16%)	22,30,33	1.95	5 (22%)
3	OMG	L5	4370	3	18,26,27	0.95	1 (5%)	19,38,41	1.05	2 (10%)
3	PSU	L5	4569	3	18,21,22	1.40	3 (16%)	22,30,33	1.94	4 (18%)
3	PSU	L5	4576	3	18,21,22	1.38	2 (11%)	22,30,33	1.93	3 (13%)
63	SAC	Lr	2	63	7,8,9	3.80	2 (28%)	8,9,11	4.29	4 (50%)
2	PSU	L8	69	85,2	18,21,22	1.38	3 (16%)	22,30,33	1.95	4 (18%)
1	6MZ	S2	1832	85,84,1	18,25,26	0.86	1 (5%)	16,36,39	2.13	3 (18%)
3	OMU	L5	2415	3	19,22,23	1.23	3 (15%)	26,31,34	1.71	4 (15%)
1	PSU	S2	1643	85,1	18,21,22	1.38	2 (11%)	22,30,33	1.90	5 (22%)
2	PSU	L8	55	2	18,21,22	1.37	3 (16%)	22,30,33	1.89	4 (18%)
1	PSU	S2	105	1	18,21,22	1.38	3 (16%)	22,30,33	1.92	4 (18%)
3	5MC	L5	4447	3,84	18,22,23	1.02	2 (11%)	26,32,35	1.27	2 (7%)
1	PSU	S2	1347	1	18,21,22	1.35	3 (16%)	22,30,33	1.89	3 (13%)
3	PSU	L5	1683	3,84	18,21,22	1.43	3 (16%)	22,30,33	1.99	3 (13%)
1	MA6	S2	1850	1	19,26,27	0.90	1 (5%)	18,38,41	1.32	3 (16%)
2	OMG	L8	75	2	18,26,27	0.89	1 (5%)	19,38,41	1.08	2 (10%)
3	OMG	L5	4494	3,85	18,26,27	0.95	1 (5%)	19,38,41	1.11	3 (15%)
1	OMU	S2	172	1	19,22,23	1.21	2 (10%)	26,31,34	1.77	5 (19%)
1	PSU	S2	119	1	18,21,22	1.36	2 (11%)	22,30,33	1.92	4 (18%)
3	OMG	L5	3899	3	18,26,27	0.91	1 (5%)	19,38,41	1.14	2 (10%)
1	PSU	S2	1243	1	18,21,22	1.37	2 (11%)	22,30,33	1.90	3 (13%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	A2M	L5	398	3	-	1/5/27/28	0/3/3/3
3	PSU	L5	1536	3	-	0/7/25/26	0/2/2/2
1	PSU	S2	109	1	-	0/7/25/26	0/2/2/2
1	OMG	S2	601	1	-	1/5/27/28	0/3/3/3
1	OMG	S2	644	1	-	4/5/27/28	0/3/3/3
3	OMG	L5	1625	3,84	-	1/5/27/28	0/3/3/3
3	PSU	L5	4423	3	-	0/7/25/26	0/2/2/2
3	PSU	L5	4431	3	-	0/7/25/26	0/2/2/2
1	PSU	S2	572	1	-	0/7/25/26	0/2/2/2
81	OMC	Pt	33	81	-	0/9/27/28	0/2/2/2
1	A2M	S2	668	85,1	-	2/5/27/28	0/3/3/3
1	PSU	S2	651	1	-	0/7/25/26	0/2/2/2
1	PSU	S2	866	1	-	0/7/25/26	0/2/2/2
1	PSU	S2	801	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	4493	3,84	-	0/7/25/26	0/2/2/2
3	PSU	L5	4628	3	-	0/7/25/26	0/2/2/2
1	OMU	S2	1804	1	-	1/9/27/28	0/2/2/2
1	OMG	S2	683	1	-	0/5/27/28	0/3/3/3
3	A2M	L5	1524	3	-	1/5/27/28	0/3/3/3
3	UY1	L5	3818	3,84	-	2/9/27/28	0/2/2/2
3	PSU	L5	1779	3	-	0/7/25/26	0/2/2/2
3	OMC	L5	2351	3,85	-	2/9/27/28	0/2/2/2
1	A2M	S2	1031	1	-	0/5/27/28	0/3/3/3
3	PSU	L5	3853	3,85,84	-	0/7/25/26	0/2/2/2
3	OMG	L5	3627	3	-	0/5/27/28	0/3/3/3
1	PSU	S2	815	1	-	0/7/25/26	0/2/2/2
29	AME	SV	1	29	-	1/9/10/12	-
3	A2M	L5	3760	3,85	-	1/5/27/28	0/3/3/3
3	OMU	L5	4227	3	-	0/9/27/28	0/2/2/2
3	A2M	L5	2787	3,85	-	0/5/27/28	0/3/3/3
1	OMU	S2	1288	1	-	3/9/27/28	0/2/2/2
1	PSU	S2	1136	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	4579	3	-	0/7/25/26	0/2/2/2
1	OMU	S2	428	1	-	4/9/27/28	0/2/2/2
6	SAC	SA	2	6	-	5/7/8/10	-
3	A2M	L5	2363	3,85	-	1/5/27/28	0/3/3/3
3	PSU	L5	3762	3	-	0/7/25/26	0/2/2/2
3	PSU	L5	5001	3,85	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	OMG	S2	436	1	-	0/5/27/28	0/3/3/3
3	PSU	L5	2508	3	-	0/7/25/26	0/2/2/2
3	PSU	L5	3770	3	-	0/7/25/26	0/2/2/2
3	OMC	L5	2861	3	-	0/9/27/28	0/2/2/2
3	PSU	L5	4420	3	-	3/7/25/26	0/2/2/2
3	OMC	L5	3869	3	-	0/9/27/28	0/2/2/2
3	OMC	L5	3701	3,84	-	4/9/27/28	0/2/2/2
1	4AC	S2	1337	1	-	2/11/29/30	0/2/2/2
3	PSU	L5	4972	3,84	-	0/7/25/26	0/2/2/2
1	OMU	S2	121	1	-	0/9/27/28	0/2/2/2
3	OMC	L5	2804	3	-	0/9/27/28	0/2/2/2
3	A2M	L5	3718	3	-	1/5/27/28	0/3/3/3
3	OMC	L5	2824	3	-	0/9/27/28	0/2/2/2
49	V5N	La	39	49	-	0/5/10/12	0/1/1/1
3	PSU	L5	4552	3	-	0/7/25/26	0/2/2/2
3	PSU	L5	4636	3,85	-	2/7/25/26	0/2/2/2
1	PSU	S2	36	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	3851	3	-	1/7/25/26	0/2/2/2
3	PSU	L5	1862	3	-	0/7/25/26	0/2/2/2
3	OMG	L5	2364	3	-	0/5/27/28	0/3/3/3
3	OMC	L5	3808	3	-	0/9/27/28	0/2/2/2
1	PSU	S2	1004	1	-	0/7/25/26	0/2/2/2
3	6MZ	L5	4220	3	-	0/5/27/28	0/3/3/3
1	PSU	S2	34	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	3768	3	-	0/7/25/26	0/2/2/2
3	PSU	L5	1582	3	-	0/7/25/26	0/2/2/2
3	OMG	L5	4499	3	-	0/5/27/28	0/3/3/3
3	UR3	L5	4530	3	-	0/7/25/26	0/2/2/2
76	M3L	Lm	98	76	-	0/9/10/12	-
1	PSU	S2	406	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	3734	3	-	0/7/25/26	0/2/2/2
1	PSU	S2	822	1	-	2/7/25/26	0/2/2/2
81	PSU	Pt	56	81	-	0/7/25/26	0/2/2/2
1	OMC	S2	1703	85,1	-	0/9/27/28	0/2/2/2
3	PSU	L5	4293	3	-	0/7/25/26	0/2/2/2
65	MLZ	Lb	5	65,84	-	1/7/8/10	-
1	MA6	S2	1851	85,1	-	3/7/29/30	0/3/3/3
1	OMC	S2	462	1	-	1/9/27/28	0/2/2/2
3	A2M	L5	2815	3,85	-	3/5/27/28	0/3/3/3
1	A2M	S2	468	1	-	1/5/27/28	0/3/3/3
3	PSU	L5	4296	3	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	OMG	L5	2424	3	-	0/5/27/28	0/3/3/3
1	A2M	S2	159	1	-	1/5/27/28	0/3/3/3
3	A2M	L5	3785	3	-	2/5/27/28	0/3/3/3
3	OMU	L5	2837	3	-	0/9/27/28	0/2/2/2
1	A2M	S2	590	1	-	2/5/27/28	0/3/3/3
3	OMC	L5	1340	3	-	0/9/27/28	0/2/2/2
3	PSU	L5	4353	3	-	0/7/25/26	0/2/2/2
3	PSU	L5	1744	3,84	-	0/7/25/26	0/2/2/2
3	PSU	L5	4403	3,84	-	0/7/25/26	0/2/2/2
3	PSU	L5	3920	3,85	-	0/7/25/26	0/2/2/2
1	OMU	S2	627	1	-	0/9/27/28	0/2/2/2
3	PSU	L5	4689	3	-	0/7/25/26	0/2/2/2
1	PSU	S2	1625	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	4457	3	-	0/7/25/26	0/2/2/2
81	4SU	Pt	8	81	-	0/7/25/26	0/2/2/2
1	PSU	S2	1445	1	-	0/7/25/26	0/2/2/2
1	PSU	S2	296	1	-	0/7/25/26	0/2/2/2
3	OMC	L5	1881	3,85	-	0/9/27/28	0/2/2/2
3	PSU	L5	1860	3	-	0/7/25/26	0/2/2/2
3	1MA	L5	1322	3,85	-	0/3/25/26	0/3/3/3
1	PSU	S2	863	1	-	0/7/25/26	0/2/2/2
1	G7M	S2	1639	81,1	-	0/3/25/26	0/3/3/3
1	4AC	S2	1842	1	-	0/11/29/30	0/2/2/2
3	OMC	L5	2422	3,85	-	2/9/27/28	0/2/2/2
3	PSU	L5	4531	3	-	1/7/25/26	0/2/2/2
1	UY1	S2	1326	85,1	-	2/9/27/28	0/2/2/2
3	PSU	L5	5010	3	-	0/7/25/26	0/2/2/2
1	OMU	S2	116	1	-	1/9/27/28	0/2/2/2
1	PSU	S2	681	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	3715	3	-	0/7/25/26	0/2/2/2
1	OMG	S2	867	1	-	1/5/27/28	0/3/3/3
1	PSU	S2	918	1	-	3/7/25/26	0/2/2/2
3	PSU	L5	4312	3,85	-	0/7/25/26	0/2/2/2
3	PSU	L5	3884	3	-	0/7/25/26	0/2/2/2
78	MLZ	Lo	53	78	-	1/7/8/10	-
3	PSU	L5	3758	3	-	0/7/25/26	0/2/2/2
3	OMU	L5	3925	3	-	0/9/27/28	0/2/2/2
3	5MC	L5	3782	3,85	-	0/7/25/26	0/2/2/2
3	OMU	L5	4306	3	-	0/9/27/28	0/2/2/2
3	PSU	L5	1792	3,84	-	0/7/25/26	0/2/2/2
3	OMG	L5	4637	3,84	-	1/5/27/28	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	PSU	S2	1177	1	-	0/7/25/26	0/2/2/2
1	A2M	S2	484	1	-	1/5/27/28	0/3/3/3
1	PSU	S2	1174	85,1	-	0/7/25/26	0/2/2/2
3	OMC	L5	4456	3	-	0/9/27/28	0/2/2/2
81	H2U	Pt	21	81	-	2/7/38/39	0/2/2/2
38	V5N	LA	216	38	-	1/5/10/12	0/1/1/1
1	OMU	S2	354	1	-	0/9/27/28	0/2/2/2
3	OMG	L5	1316	3	-	0/5/27/28	0/3/3/3
3	PSU	L5	1781	3	-	0/7/25/26	0/2/2/2
1	PSU	S2	814	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	4673	3,85	-	0/7/25/26	0/2/2/2
1	PSU	S2	1056	1	-	0/7/25/26	0/2/2/2
1	A2M	S2	27	85,1	-	1/5/27/28	0/3/3/3
3	PSU	L5	4532	3	-	0/7/25/26	0/2/2/2
3	OMC	L5	2365	3,85	-	0/9/27/28	0/2/2/2
3	PSU	L5	4442	3	-	0/7/25/26	0/2/2/2
1	OMC	S2	517	1	-	0/9/27/28	0/2/2/2
3	OMU	L5	4498	3,84	-	0/9/27/28	0/2/2/2
3	OMC	L5	3841	3	-	0/9/27/28	0/2/2/2
3	PSU	L5	1677	3	-	2/7/25/26	0/2/2/2
3	PSU	L5	3729	3	-	1/7/25/26	0/2/2/2
1	PSU	S2	1239	1	-	0/7/25/26	0/2/2/2
81	G7M	Pt	47	81	-	0/3/25/26	0/3/3/3
3	OMG	L5	4623	3	-	0/5/27/28	0/3/3/3
2	OMU	L8	14	3,2,84	-	1/9/27/28	0/2/2/2
3	A2M	L5	3867	3	-	1/5/27/28	0/3/3/3
3	PSU	L5	4361	3	-	0/7/25/26	0/2/2/2
1	A2M	S2	99	85,1	-	0/5/27/28	0/3/3/3
1	PSU	S2	93	1	-	0/7/25/26	0/2/2/2
3	OMU	L5	4620	3	-	0/9/27/28	0/2/2/2
1	PSU	S2	686	1	-	0/7/25/26	0/2/2/2
1	OMU	S2	1442	85,1	-	2/9/27/28	0/2/2/2
3	OMC	L5	4536	3	-	0/9/27/28	0/2/2/2
3	PSU	L5	3639	3	-	0/7/25/26	0/2/2/2
3	PSU	L5	4521	3,85,84	-	0/7/25/26	0/2/2/2
3	PSU	L5	4471	3,85	-	0/7/25/26	0/2/2/2
3	OMC	L5	3887	3,85	-	0/9/27/28	0/2/2/2
1	PSU	S2	1367	1	-	0/7/25/26	0/2/2/2
1	PSU	S2	649	1	-	0/7/25/26	0/2/2/2
3	OMG	L5	3792	3	-	0/5/27/28	0/3/3/3
1	PSU	S2	1232	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	2839	3	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	A2M	L5	1534	3,85	-	2/5/27/28	0/3/3/3
3	PSU	L5	3695	3,84	-	0/7/25/26	0/2/2/2
3	OMG	L5	3744	3	-	0/5/27/28	0/3/3/3
3	A2M	L5	3830	3	-	0/5/27/28	0/3/3/3
3	OMG	L5	4196	3,81	-	1/5/27/28	0/3/3/3
3	A2M	L5	4590	3	-	1/5/27/28	0/3/3/3
1	A2M	S2	1678	1	-	1/5/27/28	0/3/3/3
1	PSU	S2	218	1	-	0/7/25/26	0/2/2/2
3	A2M	L5	3825	3	-	0/5/27/28	0/3/3/3
1	PSU	S2	966	1	-	0/7/25/26	0/2/2/2
3	A2M	L5	4523	3,85	-	0/5/27/28	0/3/3/3
1	OMG	S2	1447	1	-	2/5/27/28	0/3/3/3
3	OMG	L5	3944	3	-	1/5/27/28	0/3/3/3
3	OMG	L5	4618	3,84	-	0/5/27/28	0/3/3/3
20	HY3	SX	62	20	-	1/1/12/14	0/1/1/1
1	A2M	S2	576	1	-	2/5/27/28	0/3/3/3
3	OMG	L5	2876	3	-	0/5/27/28	0/3/3/3
3	A2M	L5	1326	3	-	1/5/27/28	0/3/3/3
3	OMG	L5	4392	3	-	0/5/27/28	0/3/3/3
3	A2M	L5	2401	3,85	-	0/5/27/28	0/3/3/3
1	OMG	S2	509	85,1	-	0/5/27/28	0/3/3/3
1	PSU	S2	1081	1	-	1/7/25/26	0/2/2/2
3	A2M	L5	1871	3,85	-	0/5/27/28	0/3/3/3
1	B8N	S2	1248	1	-	1/16/34/35	0/2/2/2
3	PSU	L5	1782	3	-	0/7/25/26	0/2/2/2
1	PSU	S2	609	1	-	0/7/25/26	0/2/2/2
3	A2M	L5	3723	3	-	1/5/27/28	0/3/3/3
1	PSU	S2	573	1	-	0/7/25/26	0/2/2/2
1	PSU	S2	1692	1	-	0/7/25/26	0/2/2/2
1	A2M	S2	512	1	-	1/5/27/28	0/3/3/3
1	OMC	S2	174	85,1	-	0/9/27/28	0/2/2/2
3	OMG	L5	1522	3	-	0/5/27/28	0/3/3/3
3	PSU	L5	2632	3	-	0/7/25/26	0/2/2/2
3	A2M	L5	400	3	-	0/5/27/28	0/3/3/3
1	OMC	S2	1391	1	-	0/9/27/28	0/2/2/2
1	OMG	S2	1490	85,1	-	3/5/27/28	0/3/3/3
3	PSU	L5	4299	3	-	0/7/25/26	0/2/2/2
3	A2M	L5	4571	3	-	1/5/27/28	0/3/3/3
1	A2M	S2	166	1	-	0/5/27/28	0/3/3/3
1	PSU	S2	1244	1	-	0/7/25/26	0/2/2/2
1	OMG	S2	1328	1	-	1/5/27/28	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	PSU	L5	2843	3	-	0/7/25/26	0/2/2/2
3	A2M	L5	3724	3	-	1/5/27/28	0/3/3/3
3	PSU	L5	3764	3,85	-	0/7/25/26	0/2/2/2
3	OMG	L5	4228	3	-	0/5/27/28	0/3/3/3
1	PSU	S2	1238	1	-	0/7/25/26	0/2/2/2
39	HIC	LB	245	39	-	1/5/6/8	0/1/1/1
1	A2M	S2	1383	1	-	1/5/27/28	0/3/3/3
3	PSU	L5	4500	3,85	-	1/7/25/26	0/2/2/2
3	PSU	L5	3844	3	-	1/7/25/26	0/2/2/2
3	PSU	L5	3637	3,84	-	0/7/25/26	0/2/2/2
3	OMG	L5	4370	3	-	0/5/27/28	0/3/3/3
3	PSU	L5	4569	3	-	0/7/25/26	0/2/2/2
3	PSU	L5	4576	3	-	0/7/25/26	0/2/2/2
63	SAC	Lr	2	63	-	2/7/8/10	-
2	PSU	L8	69	85,2	-	0/7/25/26	0/2/2/2
1	6MZ	S2	1832	85,84,1	-	0/5/27/28	0/3/3/3
3	OMU	L5	2415	3	-	1/9/27/28	0/2/2/2
1	PSU	S2	1643	85,1	-	0/7/25/26	0/2/2/2
2	PSU	L8	55	2	-	0/7/25/26	0/2/2/2
1	PSU	S2	105	1	-	0/7/25/26	0/2/2/2
3	5MC	L5	4447	3,84	-	4/7/25/26	0/2/2/2
1	PSU	S2	1347	1	-	0/7/25/26	0/2/2/2
3	PSU	L5	1683	3,84	-	0/7/25/26	0/2/2/2
1	MA6	S2	1850	1	-	0/7/29/30	0/3/3/3
2	OMG	L8	75	2	-	0/5/27/28	0/3/3/3
3	OMG	L5	4494	3,85	-	1/5/27/28	0/3/3/3
1	OMU	S2	172	1	-	0/9/27/28	0/2/2/2
1	PSU	S2	119	1	-	0/7/25/26	0/2/2/2
3	OMG	L5	3899	3	-	0/5/27/28	0/3/3/3
1	PSU	S2	1243	1	-	2/7/25/26	0/2/2/2

All (436) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
63	Lr	2	SAC	OAC-C1A	8.97	1.43	1.23
6	SA	2	SAC	OAC-C1A	8.96	1.43	1.23
29	SV	1	AME	OT-CT1	8.92	1.43	1.23
1	S2	1639	G7M	C8-N9	7.50	1.46	1.33
81	Pt	47	G7M	C8-N9	7.34	1.46	1.33
81	Pt	47	G7M	C8-N7	6.97	1.45	1.33
1	S2	1639	G7M	C8-N7	6.95	1.45	1.33
81	Pt	8	4SU	C4-S4	-4.53	1.59	1.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	S2	1639	G7M	C5-C4	4.20	1.47	1.39
63	Lr	2	SAC	C1A-N	3.98	1.48	1.34
3	L5	1322	1MA	C2-N3	3.96	1.33	1.29
29	SV	1	AME	CT1-N	3.95	1.47	1.34
6	SA	2	SAC	C1A-N	3.89	1.47	1.34
3	L5	4532	PSU	C6-C5	3.41	1.39	1.35
3	L5	3770	PSU	C4-N3	-3.25	1.32	1.38
1	S2	1232	PSU	C6-C5	3.20	1.39	1.35
81	Pt	8	4SU	C4-N3	-3.18	1.34	1.37
1	S2	609	PSU	C6-C5	3.18	1.39	1.35
3	L5	2839	PSU	C4-N3	-3.17	1.33	1.38
3	L5	2843	PSU	C4-N3	-3.16	1.33	1.38
3	L5	3637	PSU	C4-N3	-3.15	1.33	1.38
1	S2	866	PSU	C6-C5	3.15	1.39	1.35
1	S2	573	PSU	C6-C5	3.14	1.39	1.35
1	S2	572	PSU	C6-C5	3.12	1.39	1.35
39	LB	245	HIC	CD2-CG	3.10	1.40	1.36
3	L5	1536	PSU	C4-N3	-3.09	1.33	1.38
81	Pt	56	PSU	C6-C5	3.09	1.38	1.35
1	S2	34	PSU	C6-C5	3.08	1.38	1.35
1	S2	1625	PSU	C6-C5	3.08	1.38	1.35
3	L5	3844	PSU	C6-C5	3.07	1.38	1.35
3	L5	4431	PSU	C6-C5	3.07	1.38	1.35
1	S2	1239	PSU	C6-C5	3.06	1.38	1.35
3	L5	3762	PSU	C6-C5	3.06	1.38	1.35
3	L5	4521	PSU	C4-N3	-3.06	1.33	1.38
1	S2	863	PSU	C6-C5	3.06	1.38	1.35
1	S2	1643	PSU	C6-C5	3.05	1.38	1.35
3	L5	1683	PSU	C6-C5	3.05	1.38	1.35
3	L5	3695	PSU	C4-N3	-3.05	1.33	1.38
3	L5	4431	PSU	C4-N3	-3.05	1.33	1.38
1	S2	93	PSU	C6-C5	3.05	1.38	1.35
3	L5	4493	PSU	C4-N3	-3.05	1.33	1.38
3	L5	4972	PSU	C6-C5	3.04	1.38	1.35
20	SX	62	HY3	C3-CA	-3.04	1.52	1.55
3	L5	4673	PSU	C6-C5	3.03	1.38	1.35
1	S2	119	PSU	C6-C5	3.03	1.38	1.35
1	S2	406	PSU	C6-C5	3.03	1.38	1.35
3	L5	3818	UY1	C4-N3	-3.03	1.33	1.38
1	S2	649	PSU	C6-C5	3.03	1.38	1.35
1	S2	681	PSU	C4-N3	-3.02	1.33	1.38
1	S2	1243	PSU	C6-C5	3.02	1.38	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	4296	PSU	C4-N3	-3.02	1.33	1.38
3	L5	1860	PSU	C6-C5	3.02	1.38	1.35
3	L5	1683	PSU	C4-N3	-3.01	1.33	1.38
1	S2	681	PSU	C6-C5	3.01	1.38	1.35
3	L5	4353	PSU	C4-N3	-3.01	1.33	1.38
3	L5	1860	PSU	C4-N3	-3.00	1.33	1.38
1	S2	1692	PSU	C6-C5	3.00	1.38	1.35
1	S2	1238	PSU	C6-C5	3.00	1.38	1.35
3	L5	4471	PSU	C4-N3	-3.00	1.33	1.38
1	S2	822	PSU	C6-C5	3.00	1.38	1.35
1	S2	686	PSU	C6-C5	3.00	1.38	1.35
3	L5	4569	PSU	C4-N3	-2.99	1.33	1.38
3	L5	4493	PSU	C6-C5	2.99	1.38	1.35
2	L8	55	PSU	C4-N3	-2.99	1.33	1.38
3	L5	1782	PSU	C4-N3	-2.99	1.33	1.38
1	S2	1174	PSU	C4-N3	-2.98	1.33	1.38
3	L5	4500	PSU	C6-C5	2.98	1.38	1.35
3	L5	3884	PSU	C4-N3	-2.98	1.33	1.38
3	L5	3851	PSU	C4-N3	-2.98	1.33	1.38
3	L5	1536	PSU	C6-C5	2.98	1.38	1.35
1	S2	651	PSU	C6-C5	2.97	1.38	1.35
3	L5	4636	PSU	C4-N3	-2.97	1.33	1.38
1	S2	296	PSU	C6-C5	2.97	1.38	1.35
3	L5	5001	PSU	C4-N3	-2.97	1.33	1.38
3	L5	4392	OMG	C6-N1	-2.97	1.33	1.37
3	L5	4972	PSU	C4-N3	-2.96	1.33	1.38
3	L5	3639	PSU	C6-C5	2.95	1.38	1.35
1	S2	1244	PSU	C6-C5	2.95	1.38	1.35
1	S2	918	PSU	C6-C5	2.95	1.38	1.35
3	L5	2876	OMG	C6-N1	-2.95	1.33	1.37
3	L5	1779	PSU	C4-N3	-2.95	1.33	1.38
3	L5	1744	PSU	C4-N3	-2.95	1.33	1.38
3	L5	3925	OMU	C4-N3	-2.95	1.33	1.38
3	L5	4312	PSU	C4-N3	-2.95	1.33	1.38
3	L5	4370	OMG	C6-N1	-2.95	1.33	1.37
1	S2	1081	PSU	C4-N3	-2.94	1.33	1.38
1	S2	1136	PSU	C6-C5	2.94	1.38	1.35
3	L5	3851	PSU	C6-C5	2.94	1.38	1.35
1	S2	1004	PSU	C6-C5	2.94	1.38	1.35
3	L5	4361	PSU	C4-N3	-2.94	1.33	1.38
3	L5	1744	PSU	C6-C5	2.94	1.38	1.35
1	S2	1367	PSU	C6-C5	2.94	1.38	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	4299	PSU	C4-N3	-2.94	1.33	1.38
3	L5	4569	PSU	C6-C5	2.93	1.38	1.35
3	L5	4299	PSU	C6-C5	2.93	1.38	1.35
1	S2	36	PSU	C6-C5	2.93	1.38	1.35
3	L5	3853	PSU	C4-N3	-2.93	1.33	1.38
3	L5	4420	PSU	C6-C5	2.93	1.38	1.35
3	L5	1862	PSU	C4-N3	-2.92	1.33	1.38
1	S2	105	PSU	C6-C5	2.92	1.38	1.35
1	S2	801	PSU	C6-C5	2.92	1.38	1.35
1	S2	1174	PSU	C6-C5	2.92	1.38	1.35
3	L5	4353	PSU	C6-C5	2.92	1.38	1.35
1	S2	1136	PSU	C4-N3	-2.92	1.33	1.38
1	S2	1445	PSU	C6-C5	2.91	1.38	1.35
3	L5	5001	PSU	C6-C5	2.91	1.38	1.35
3	L5	4552	PSU	C4-N3	-2.91	1.33	1.38
3	L5	4689	PSU	C4-N3	-2.91	1.33	1.38
1	S2	966	PSU	C4-N3	-2.91	1.33	1.38
3	L5	4403	PSU	C4-N3	-2.91	1.33	1.38
3	L5	3715	PSU	C4-N3	-2.90	1.33	1.38
3	L5	5010	PSU	C6-C5	2.90	1.38	1.35
3	L5	2632	PSU	C6-C5	2.90	1.38	1.35
3	L5	4442	PSU	C6-C5	2.90	1.38	1.35
3	L5	3884	PSU	C6-C5	2.90	1.38	1.35
3	L5	4532	PSU	C4-N3	-2.90	1.33	1.38
3	L5	3758	PSU	C6-C5	2.90	1.38	1.35
1	S2	1177	PSU	C4-N3	-2.90	1.33	1.38
1	S2	105	PSU	C4-N3	-2.90	1.33	1.38
3	L5	2632	PSU	C4-N3	-2.90	1.33	1.38
3	L5	3639	PSU	C4-N3	-2.90	1.33	1.38
3	L5	1582	PSU	C4-N3	-2.89	1.33	1.38
3	L5	4447	5MC	C6-C5	2.89	1.39	1.34
3	L5	3637	PSU	C6-C5	2.89	1.38	1.35
3	L5	1582	PSU	C6-C5	2.89	1.38	1.35
1	S2	966	PSU	C6-C5	2.89	1.38	1.35
1	S2	109	PSU	C6-C5	2.89	1.38	1.35
3	L5	4442	PSU	C4-N3	-2.89	1.33	1.38
1	S2	1337	4AC	C4-N4	-2.89	1.35	1.39
3	L5	4306	OMU	C4-N3	-2.88	1.33	1.38
3	L5	4620	OMU	C4-N3	-2.88	1.33	1.38
1	S2	218	PSU	C6-C5	2.88	1.38	1.35
3	L5	4628	PSU	C4-N3	-2.88	1.33	1.38
1	S2	1347	PSU	C6-C5	2.88	1.38	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	3844	PSU	C4-N3	-2.88	1.33	1.38
2	L8	14	OMU	C4-N3	-2.88	1.33	1.38
3	L5	1677	PSU	C4-N3	-2.88	1.33	1.38
1	S2	1326	UY1	C6-C5	2.88	1.38	1.35
3	L5	1792	PSU	C4-N3	-2.87	1.33	1.38
1	S2	406	PSU	C4-N3	-2.87	1.33	1.38
1	S2	1248	B8N	C6-C5	2.87	1.39	1.34
3	L5	4576	PSU	C4-N3	-2.87	1.33	1.38
3	L5	4494	OMG	C6-N1	-2.87	1.33	1.37
3	L5	1782	PSU	C6-C5	2.86	1.38	1.35
3	L5	2508	PSU	C4-N3	-2.86	1.33	1.38
3	L5	5010	PSU	C4-N3	-2.86	1.33	1.38
3	L5	3764	PSU	C6-C5	2.85	1.38	1.35
3	L5	4636	PSU	C6-C5	2.85	1.38	1.35
3	L5	4423	PSU	C4-N3	-2.85	1.33	1.38
3	L5	2839	PSU	C6-C5	2.85	1.38	1.35
1	S2	918	PSU	C4-N3	-2.85	1.33	1.38
3	L5	3768	PSU	C6-C5	2.85	1.38	1.35
1	S2	1177	PSU	C6-C5	2.84	1.38	1.35
2	L8	69	PSU	C4-N3	-2.84	1.33	1.38
3	L5	3764	PSU	C4-N3	-2.84	1.33	1.38
3	L5	4579	PSU	C6-C5	2.84	1.38	1.35
3	L5	4423	PSU	C6-C5	2.84	1.38	1.35
1	S2	814	PSU	C6-C5	2.84	1.38	1.35
3	L5	3729	PSU	C4-N3	-2.84	1.33	1.38
3	L5	3758	PSU	C4-N3	-2.84	1.33	1.38
3	L5	4361	PSU	C6-C5	2.83	1.38	1.35
3	L5	3768	PSU	C4-N3	-2.83	1.33	1.38
3	L5	4579	PSU	C4-N3	-2.83	1.33	1.38
3	L5	4673	PSU	C4-N3	-2.83	1.33	1.38
1	S2	1056	PSU	C6-C5	2.83	1.38	1.35
3	L5	1781	PSU	C4-N3	-2.83	1.33	1.38
2	L8	69	PSU	C6-C5	2.82	1.38	1.35
3	L5	4296	PSU	C6-C5	2.82	1.38	1.35
1	S2	801	PSU	C4-N3	-2.82	1.33	1.38
3	L5	3695	PSU	C6-C5	2.82	1.38	1.35
3	L5	4293	PSU	C4-N3	-2.82	1.33	1.38
2	L8	55	PSU	C6-C5	2.82	1.38	1.35
1	S2	1326	UY1	C4-N3	-2.82	1.33	1.38
3	L5	3729	PSU	C6-C5	2.81	1.38	1.35
3	L5	3920	PSU	C4-N3	-2.81	1.33	1.38
3	L5	4293	PSU	C6-C5	2.81	1.38	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	4521	PSU	C6-C5	2.81	1.38	1.35
3	L5	2424	OMG	C6-N1	-2.81	1.33	1.37
1	S2	36	PSU	C4-N3	-2.81	1.33	1.38
1	S2	686	PSU	C4-N3	-2.81	1.33	1.38
1	S2	1238	PSU	C4-N3	-2.81	1.33	1.38
1	S2	651	PSU	C4-N3	-2.80	1.33	1.38
3	L5	4689	PSU	C6-C5	2.80	1.38	1.35
3	L5	1322	1MA	C6-N6	2.80	1.34	1.27
1	S2	1004	PSU	C4-N3	-2.80	1.33	1.38
1	S2	1692	PSU	C4-N3	-2.80	1.33	1.38
3	L5	4500	PSU	C4-N3	-2.80	1.33	1.38
3	L5	4457	PSU	C4-N3	-2.80	1.33	1.38
1	S2	863	PSU	C4-N3	-2.79	1.33	1.38
1	S2	1643	PSU	C4-N3	-2.79	1.33	1.38
3	L5	4403	PSU	C6-C5	2.79	1.38	1.35
3	L5	4471	PSU	C6-C5	2.79	1.38	1.35
3	L5	4552	PSU	C6-C5	2.79	1.38	1.35
1	S2	649	PSU	C4-N3	-2.79	1.33	1.38
3	L5	3853	PSU	C6-C5	2.79	1.38	1.35
3	L5	3734	PSU	C4-N3	-2.78	1.33	1.38
1	S2	1239	PSU	C4-N3	-2.78	1.33	1.38
3	L5	3920	PSU	C6-C5	2.78	1.38	1.35
3	L5	3734	PSU	C6-C5	2.78	1.38	1.35
3	L5	2837	OMU	C4-N3	-2.78	1.33	1.38
3	L5	4227	OMU	C4-N3	-2.78	1.33	1.38
3	L5	4637	OMG	C6-N1	-2.78	1.33	1.37
1	S2	93	PSU	C4-N3	-2.78	1.33	1.38
1	S2	34	PSU	C4-N3	-2.77	1.33	1.38
1	S2	1056	PSU	C4-N3	-2.77	1.33	1.38
3	L5	4576	PSU	C6-C5	2.77	1.38	1.35
1	S2	1367	PSU	C4-N3	-2.77	1.33	1.38
3	L5	3792	OMG	C6-N1	-2.76	1.33	1.37
1	S2	1625	PSU	C4-N3	-2.76	1.33	1.38
1	S2	815	PSU	C6-C5	2.75	1.38	1.35
3	L5	1625	OMG	C6-N1	-2.75	1.33	1.37
3	L5	4531	PSU	C4-N3	-2.75	1.33	1.38
3	L5	1781	PSU	C6-C5	2.75	1.38	1.35
3	L5	2364	OMG	C6-N1	-2.75	1.33	1.37
1	S2	815	PSU	C4-N3	-2.75	1.33	1.38
1	S2	1232	PSU	C4-N3	-2.75	1.33	1.38
1	S2	109	PSU	C4-N3	-2.75	1.33	1.38
1	S2	1081	PSU	C6-C5	2.75	1.38	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	4196	OMG	C6-N1	-2.75	1.33	1.37
3	L5	3818	UY1	C6-C5	2.75	1.38	1.35
1	S2	218	PSU	C4-N3	-2.75	1.33	1.38
1	S2	1244	PSU	C4-N3	-2.74	1.33	1.38
1	S2	1243	PSU	C4-N3	-2.74	1.33	1.38
1	S2	1347	PSU	C4-N3	-2.74	1.33	1.38
1	S2	1445	PSU	C4-N3	-2.74	1.33	1.38
1	S2	814	PSU	C4-N3	-2.74	1.33	1.38
3	L5	4498	OMU	C4-N3	-2.74	1.33	1.38
1	S2	609	PSU	C4-N3	-2.74	1.33	1.38
3	L5	2415	OMU	C4-N3	-2.74	1.33	1.38
3	L5	4531	PSU	C6-C5	2.73	1.38	1.35
1	S2	354	OMU	C4-N3	-2.73	1.33	1.38
3	L5	1862	PSU	C6-C5	2.73	1.38	1.35
1	S2	573	PSU	C4-N3	-2.72	1.33	1.38
1	S2	296	PSU	C4-N3	-2.72	1.33	1.38
1	S2	572	PSU	C4-N3	-2.72	1.33	1.38
3	L5	1779	PSU	C6-C5	2.72	1.38	1.35
1	S2	119	PSU	C4-N3	-2.72	1.33	1.38
1	S2	866	PSU	C4-N3	-2.72	1.33	1.38
3	L5	3899	OMG	C6-N1	-2.71	1.33	1.37
3	L5	4312	PSU	C6-C5	2.70	1.38	1.35
3	L5	2508	PSU	C6-C5	2.70	1.38	1.35
3	L5	3925	OMU	C2-N3	-2.70	1.33	1.38
81	Pt	56	PSU	C4-N3	-2.70	1.33	1.38
3	L5	4420	PSU	C4-N3	-2.70	1.33	1.38
1	S2	822	PSU	C4-N3	-2.69	1.33	1.38
3	L5	3762	PSU	C4-N3	-2.69	1.33	1.38
3	L5	4618	OMG	C6-N1	-2.69	1.33	1.37
3	L5	1522	OMG	C6-N1	-2.69	1.33	1.37
3	L5	2843	PSU	C6-C5	2.68	1.38	1.35
1	S2	509	OMG	C6-N1	-2.67	1.33	1.37
3	L5	3782	5MC	C6-N1	-2.67	1.33	1.38
3	L5	4499	OMG	C6-N1	-2.66	1.33	1.37
3	L5	3627	OMG	C6-N1	-2.66	1.33	1.37
1	S2	1447	OMG	C6-N1	-2.66	1.33	1.37
3	L5	3770	PSU	C6-C5	2.65	1.38	1.35
3	L5	3715	PSU	C6-C5	2.65	1.38	1.35
3	L5	3744	OMG	C6-N1	-2.64	1.33	1.37
1	S2	1804	OMU	C4-N3	-2.64	1.33	1.38
1	S2	683	OMG	C6-N1	-2.63	1.34	1.37
81	Pt	8	4SU	C5-C4	-2.62	1.39	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	4306	OMU	C2-N3	-2.61	1.33	1.38
3	L5	1792	PSU	C6-C5	2.61	1.38	1.35
1	S2	644	OMG	C6-N1	-2.60	1.34	1.37
3	L5	4457	PSU	C6-C5	2.60	1.38	1.35
1	S2	1328	OMG	C6-N1	-2.59	1.34	1.37
3	L5	1316	OMG	C6-N1	-2.58	1.34	1.37
1	S2	172	OMU	C4-N3	-2.58	1.33	1.38
1	S2	1490	OMG	C6-N1	-2.58	1.34	1.37
1	S2	436	OMG	C6-N1	-2.57	1.34	1.37
1	S2	121	OMU	C4-N3	-2.57	1.34	1.38
1	S2	1442	OMU	C4-N3	-2.56	1.34	1.38
3	L5	4628	PSU	C6-C5	2.56	1.38	1.35
3	L5	3944	OMG	C6-N1	-2.55	1.34	1.37
1	S2	601	OMG	C6-N1	-2.54	1.34	1.37
3	L5	4228	OMG	C6-N1	-2.53	1.34	1.37
1	S2	116	OMU	C4-N3	-2.53	1.34	1.38
3	L5	3760	A2M	C5-C4	2.52	1.47	1.40
3	L5	2837	OMU	C2-N3	-2.51	1.33	1.38
3	L5	4623	OMG	C6-N1	-2.51	1.34	1.37
2	L8	14	OMU	C2-N3	-2.51	1.33	1.38
1	S2	590	A2M	C5-C4	2.51	1.47	1.40
3	L5	1677	PSU	C6-C5	2.51	1.38	1.35
3	L5	4498	OMU	C2-N3	-2.50	1.33	1.38
1	S2	428	OMU	C4-N3	-2.50	1.34	1.38
1	S2	1288	OMU	C4-N3	-2.49	1.34	1.38
3	L5	4620	OMU	C2-N3	-2.49	1.33	1.38
1	S2	1842	4AC	C4-N4	-2.48	1.36	1.39
81	Pt	21	H2U	C2-N3	-2.47	1.33	1.38
1	S2	627	OMU	C4-N3	-2.46	1.34	1.38
3	L5	3782	5MC	C6-C5	2.45	1.38	1.34
3	L5	4227	OMU	C2-N3	-2.45	1.33	1.38
1	S2	159	A2M	C5-C4	2.45	1.47	1.40
2	L8	75	OMG	C6-N1	-2.44	1.34	1.37
3	L5	1677	PSU	O4'-C1'	-2.44	1.40	1.43
1	S2	867	OMG	C6-N1	-2.43	1.34	1.37
3	L5	2415	OMU	C2-N3	-2.43	1.33	1.38
3	L5	3770	PSU	C2-N3	-2.43	1.33	1.37
1	S2	576	A2M	C5-C4	2.42	1.47	1.40
3	L5	4420	PSU	O4'-C1'	-2.42	1.40	1.43
1	S2	1639	G7M	C6-N1	-2.41	1.34	1.37
1	S2	1678	A2M	C5-C4	2.40	1.47	1.40
1	S2	1832	6MZ	C5-C4	2.40	1.47	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	3637	PSU	C2-N3	-2.40	1.33	1.37
1	S2	354	OMU	C2-N3	-2.40	1.33	1.38
1	S2	484	A2M	C5-C4	2.39	1.47	1.40
1	S2	27	A2M	C5-C4	2.36	1.47	1.40
1	S2	166	A2M	C5-C4	2.36	1.47	1.40
1	S2	512	A2M	C5-C4	2.36	1.47	1.40
3	L5	1326	A2M	C5-C4	2.36	1.47	1.40
1	S2	1850	MA6	C5-C4	2.36	1.47	1.40
1	S2	468	A2M	C5-C4	2.34	1.47	1.40
3	L5	400	A2M	C5-C4	2.34	1.47	1.40
3	L5	398	A2M	C5-C4	2.33	1.47	1.40
1	S2	99	A2M	C5-C4	2.33	1.47	1.40
1	S2	1804	OMU	C2-N3	-2.32	1.33	1.38
1	S2	1383	A2M	C5-C4	2.31	1.47	1.40
3	L5	4531	PSU	C2-N3	-2.31	1.33	1.37
1	S2	1031	A2M	C5-C4	2.31	1.47	1.40
3	L5	4590	A2M	C5-C4	2.30	1.47	1.40
3	L5	2787	A2M	C5-C4	2.30	1.47	1.40
81	Pt	47	G7M	C6-N1	2.30	1.41	1.37
3	L5	3830	A2M	C5-C4	2.29	1.47	1.40
1	S2	172	OMU	C2-N3	-2.29	1.33	1.38
3	L5	3718	A2M	C5-C4	2.29	1.47	1.40
3	L5	4447	5MC	C6-N1	-2.28	1.34	1.38
3	L5	1524	A2M	C5-C4	2.28	1.47	1.40
3	L5	3724	A2M	C5-C4	2.27	1.46	1.40
1	S2	1288	OMU	C2-N1	2.27	1.42	1.38
3	L5	4571	A2M	C5-C4	2.26	1.46	1.40
3	L5	3723	A2M	C5-C4	2.26	1.46	1.40
81	Pt	21	H2U	C4-N3	-2.26	1.33	1.37
3	L5	1536	PSU	C2-N3	-2.26	1.33	1.37
1	S2	1851	MA6	C5-C4	2.25	1.46	1.40
3	L5	4628	PSU	C2-N3	-2.25	1.33	1.37
1	S2	1081	PSU	C2-N3	-2.25	1.33	1.37
3	L5	4220	6MZ	C5-C4	2.25	1.46	1.40
3	L5	3867	A2M	C5-C4	2.24	1.46	1.40
3	L5	4299	PSU	C2-N3	-2.24	1.33	1.37
1	S2	428	OMU	C2-N3	-2.22	1.34	1.38
3	L5	2843	PSU	C2-N3	-2.22	1.33	1.37
3	L5	4523	A2M	C5-C4	2.22	1.46	1.40
3	L5	4498	OMU	C5-C4	-2.22	1.38	1.43
1	S2	1442	OMU	C2-N3	-2.21	1.34	1.38
3	L5	2839	PSU	C2-N3	-2.21	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	1534	A2M	C5-C4	2.21	1.46	1.40
3	L5	4532	PSU	C2-N3	-2.21	1.33	1.37
3	L5	2401	A2M	C5-C4	2.19	1.46	1.40
1	S2	121	OMU	C2-N3	-2.18	1.34	1.38
3	L5	4521	PSU	C2-N3	-2.18	1.33	1.37
1	S2	668	A2M	C5-C4	2.18	1.46	1.40
3	L5	2815	A2M	C5-C4	2.18	1.46	1.40
3	L5	2363	A2M	C5-C4	2.18	1.46	1.40
3	L5	2508	PSU	C2-N3	-2.18	1.33	1.37
3	L5	1871	A2M	C5-C4	2.18	1.46	1.40
3	L5	4689	PSU	C2-N3	-2.18	1.33	1.37
3	L5	3884	PSU	C2-N3	-2.17	1.33	1.37
1	S2	116	OMU	C2-N3	-2.17	1.34	1.38
3	L5	4312	PSU	C2-N3	-2.17	1.33	1.37
3	L5	3695	PSU	C2-N3	-2.15	1.33	1.37
3	L5	3825	A2M	C5-C4	2.15	1.46	1.40
3	L5	1744	PSU	C2-N3	-2.15	1.33	1.37
3	L5	1782	PSU	C2-N3	-2.15	1.33	1.37
3	L5	4361	PSU	C2-N3	-2.15	1.33	1.37
3	L5	5001	PSU	C2-N3	-2.15	1.33	1.37
3	L5	4353	PSU	C2-N3	-2.14	1.33	1.37
1	S2	121	OMU	C5-C4	-2.14	1.38	1.43
3	L5	1792	PSU	C2-N3	-2.14	1.33	1.37
3	L5	4431	PSU	C2-N3	-2.14	1.33	1.37
81	Pt	8	4SU	C2-N3	-2.14	1.34	1.38
3	L5	3770	PSU	C2'-C1'	-2.13	1.51	1.53
2	L8	55	PSU	C2-N3	-2.13	1.33	1.37
3	L5	4493	PSU	C2-N3	-2.13	1.33	1.37
3	L5	4579	PSU	C2-N3	-2.13	1.33	1.37
3	L5	1779	PSU	C2-N3	-2.12	1.33	1.37
3	L5	4296	PSU	C2-N3	-2.12	1.33	1.37
3	L5	4471	PSU	C2-N3	-2.12	1.33	1.37
3	L5	4569	PSU	C2-N3	-2.12	1.33	1.37
3	L5	3818	UY1	O4'-C1'	-2.11	1.40	1.43
1	S2	354	OMU	C5-C4	-2.11	1.39	1.43
3	L5	1781	PSU	C2-N3	-2.11	1.33	1.37
1	S2	1288	OMU	C2-N3	-2.11	1.34	1.38
1	S2	627	OMU	C2-N3	-2.11	1.34	1.38
3	L5	1860	PSU	C2-N3	-2.11	1.33	1.37
1	S2	1081	PSU	O4'-C1'	-2.10	1.40	1.43
39	LB	245	HIC	CZ-NE2	-2.10	1.42	1.48
3	L5	4673	PSU	C2-N3	-2.10	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	2837	OMU	C5-C4	-2.10	1.39	1.43
1	S2	116	OMU	C5-C4	-2.10	1.39	1.43
3	L5	3920	PSU	C2-N3	-2.09	1.33	1.37
3	L5	4293	PSU	C2-N3	-2.09	1.33	1.37
3	L5	3844	PSU	C2-N3	-2.09	1.33	1.37
3	L5	1582	PSU	C2-N3	-2.08	1.33	1.37
1	S2	814	PSU	C2-N3	-2.08	1.33	1.37
3	L5	4636	PSU	C2-N3	-2.08	1.33	1.37
1	S2	681	PSU	C2-N3	-2.08	1.33	1.37
3	L5	2415	OMU	C5-C4	-2.08	1.39	1.43
3	L5	3770	PSU	C2-N1	-2.08	1.33	1.36
3	L5	4620	OMU	C5-C4	-2.08	1.39	1.43
3	L5	3639	PSU	C2-N3	-2.08	1.34	1.37
3	L5	4628	PSU	C2-N1	-2.07	1.33	1.36
3	L5	5010	PSU	C2-N3	-2.07	1.34	1.37
1	S2	1288	OMU	C5-C4	-2.07	1.39	1.43
1	S2	1174	PSU	C2-N3	-2.07	1.34	1.37
3	L5	1683	PSU	C2-N1	-2.07	1.33	1.36
2	L8	69	PSU	C2-N3	-2.07	1.34	1.37
3	L5	3853	PSU	C2-N3	-2.06	1.34	1.37
1	S2	1347	PSU	C2-N3	-2.06	1.34	1.37
3	L5	1862	PSU	C2-N3	-2.06	1.34	1.37
3	L5	2632	PSU	C2-N3	-2.05	1.34	1.37
3	L5	3729	PSU	C2-N3	-2.05	1.34	1.37
3	L5	4423	PSU	C2-N3	-2.05	1.34	1.37
1	S2	1442	OMU	C5-C4	-2.04	1.39	1.43
3	L5	4552	PSU	C2-N3	-2.04	1.34	1.37
1	S2	105	PSU	C2-N3	-2.04	1.34	1.37
3	L5	4442	PSU	C2-N3	-2.04	1.34	1.37
3	L5	4972	PSU	C2-N3	-2.04	1.34	1.37
1	S2	822	PSU	O4'-C1'	-2.04	1.41	1.43
3	L5	4227	OMU	C5-C4	-2.04	1.39	1.43
3	L5	2632	PSU	C2-N1	-2.04	1.34	1.36
1	S2	966	PSU	C2-N3	-2.03	1.34	1.37
3	L5	3764	PSU	C2-N3	-2.03	1.34	1.37
1	S2	428	OMU	C5-C4	-2.02	1.39	1.43
1	S2	109	PSU	C2-N3	-2.02	1.34	1.37
3	L5	4306	OMU	C5-C4	-2.02	1.39	1.43
1	S2	1337	4AC	C7-N4	-2.02	1.33	1.37
3	L5	1677	PSU	C2-N3	-2.02	1.34	1.37
1	S2	801	PSU	C2-N3	-2.02	1.34	1.37
1	S2	1177	PSU	C2-N3	-2.02	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L5	3715	PSU	C2-N3	-2.01	1.34	1.37
3	L5	4457	PSU	C2-N3	-2.01	1.34	1.37
1	S2	1692	PSU	C2-N3	-2.01	1.34	1.37
3	L5	3851	PSU	C2-N3	-2.01	1.34	1.37
1	S2	406	PSU	C2-N3	-2.01	1.34	1.37
3	L5	3925	OMU	C5-C4	-2.01	1.39	1.43
3	L5	3758	PSU	C2-N3	-2.00	1.34	1.37
3	L5	4403	PSU	C2-N3	-2.00	1.34	1.37

All (640) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	SA	2	SAC	OAC-C1A-C2A	-7.63	107.89	122.06
1	S2	1832	6MZ	C2-N1-C6	7.17	122.74	116.59
29	SV	1	AME	CA-N-CT1	-7.11	110.04	123.15
3	L5	4532	PSU	N1-C2-N3	7.10	123.17	115.13
63	Lr	2	SAC	OAC-C1A-N	-6.90	109.27	121.95
29	SV	1	AME	OT-CT1-CT2	-6.83	109.36	122.06
81	Pt	8	4SU	C4-N3-C2	-6.74	120.80	127.34
6	SA	2	SAC	OAC-C1A-N	-6.62	109.77	121.95
3	L5	4530	UR3	C4-N3-C2	-6.61	118.34	124.56
63	Lr	2	SAC	OAC-C1A-C2A	-6.55	109.89	122.06
3	L5	3818	UY1	N1-C2-N3	6.51	122.51	115.13
63	Lr	2	SAC	CA-N-C1A	-6.47	111.22	123.15
3	L5	3637	PSU	N1-C2-N3	6.42	122.41	115.13
3	L5	3770	PSU	N1-C2-N3	6.42	122.41	115.13
29	SV	1	AME	OT-CT1-N	-6.42	110.15	121.95
3	L5	1683	PSU	N1-C2-N3	6.39	122.37	115.13
3	L5	2839	PSU	N1-C2-N3	6.37	122.34	115.13
3	L5	4296	PSU	N1-C2-N3	6.35	122.33	115.13
3	L5	4403	PSU	N1-C2-N3	6.34	122.31	115.13
3	L5	4500	PSU	N1-C2-N3	6.32	122.29	115.13
3	L5	4471	PSU	N1-C2-N3	6.30	122.27	115.13
3	L5	1536	PSU	N1-C2-N3	6.27	122.23	115.13
3	L5	4457	PSU	N1-C2-N3	6.26	122.22	115.13
3	L5	4569	PSU	N1-C2-N3	6.24	122.20	115.13
3	L5	1677	PSU	N1-C2-N3	6.23	122.19	115.13
1	S2	1177	PSU	N1-C2-N3	6.20	122.16	115.13
3	L5	4423	PSU	N1-C2-N3	6.20	122.16	115.13
3	L5	4673	PSU	N1-C2-N3	6.20	122.15	115.13
3	L5	1862	PSU	N1-C2-N3	6.20	122.15	115.13
3	L5	4220	6MZ	C2-N1-C6	6.19	121.90	116.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	L5	4493	PSU	N1-C2-N3	6.19	122.14	115.13
3	L5	1779	PSU	N1-C2-N3	6.17	122.12	115.13
1	S2	1244	PSU	N1-C2-N3	6.17	122.12	115.13
3	L5	3851	PSU	N1-C2-N3	6.17	122.12	115.13
3	L5	4442	PSU	N1-C2-N3	6.16	122.10	115.13
3	L5	4353	PSU	N1-C2-N3	6.15	122.10	115.13
3	L5	4521	PSU	N1-C2-N3	6.15	122.10	115.13
1	S2	649	PSU	N1-C2-N3	6.14	122.09	115.13
1	S2	1056	PSU	N1-C2-N3	6.14	122.09	115.13
3	L5	4576	PSU	N1-C2-N3	6.13	122.08	115.13
3	L5	3729	PSU	N1-C2-N3	6.12	122.06	115.13
1	S2	822	PSU	N1-C2-N3	6.11	122.06	115.13
3	L5	3762	PSU	N1-C2-N3	6.11	122.05	115.13
1	S2	686	PSU	N1-C2-N3	6.11	122.05	115.13
1	S2	863	PSU	N1-C2-N3	6.10	122.04	115.13
3	L5	3715	PSU	N1-C2-N3	6.10	122.04	115.13
2	L8	69	PSU	N1-C2-N3	6.10	122.04	115.13
1	S2	406	PSU	N1-C2-N3	6.09	122.03	115.13
1	S2	34	PSU	N1-C2-N3	6.09	122.03	115.13
1	S2	866	PSU	N1-C2-N3	6.09	122.03	115.13
3	L5	4431	PSU	N1-C2-N3	6.09	122.03	115.13
3	L5	1582	PSU	N1-C2-N3	6.09	122.03	115.13
6	SA	2	SAC	CA-N-C1A	-6.09	111.92	123.15
3	L5	4636	PSU	N1-C2-N3	6.08	122.02	115.13
1	S2	1238	PSU	N1-C2-N3	6.08	122.02	115.13
3	L5	3853	PSU	N1-C2-N3	6.08	122.02	115.13
1	S2	1692	PSU	N1-C2-N3	6.08	122.02	115.13
1	S2	918	PSU	N1-C2-N3	6.08	122.02	115.13
3	L5	4299	PSU	N1-C2-N3	6.08	122.02	115.13
1	S2	1136	PSU	N1-C2-N3	6.08	122.02	115.13
3	L5	4689	PSU	N1-C2-N3	6.08	122.02	115.13
1	S2	36	PSU	N1-C2-N3	6.08	122.01	115.13
3	L5	3768	PSU	N1-C2-N3	6.07	122.01	115.13
1	S2	105	PSU	N1-C2-N3	6.07	122.00	115.13
1	S2	1445	PSU	N1-C2-N3	6.06	122.00	115.13
3	L5	2843	PSU	N1-C2-N3	6.06	121.99	115.13
1	S2	1232	PSU	N1-C2-N3	6.06	121.99	115.13
3	L5	2508	PSU	N1-C2-N3	6.05	121.98	115.13
2	L8	55	PSU	N1-C2-N3	6.05	121.98	115.13
1	S2	572	PSU	N1-C2-N3	6.05	121.98	115.13
1	S2	681	PSU	N1-C2-N3	6.04	121.98	115.13
3	L5	1792	PSU	N1-C2-N3	6.04	121.97	115.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	S2	1081	PSU	N1-C2-N3	6.04	121.97	115.13
3	L5	4972	PSU	N1-C2-N3	6.03	121.97	115.13
1	S2	815	PSU	N1-C2-N3	6.03	121.96	115.13
3	L5	5010	PSU	N1-C2-N3	6.03	121.96	115.13
3	L5	1782	PSU	N1-C2-N3	6.03	121.96	115.13
1	S2	119	PSU	N1-C2-N3	6.03	121.96	115.13
3	L5	3764	PSU	N1-C2-N3	6.03	121.96	115.13
1	S2	609	PSU	N1-C2-N3	6.02	121.95	115.13
3	L5	3844	PSU	N1-C2-N3	6.02	121.95	115.13
1	S2	966	PSU	N1-C2-N3	6.02	121.95	115.13
1	S2	1243	PSU	N1-C2-N3	6.02	121.95	115.13
1	S2	1367	PSU	N1-C2-N3	6.02	121.95	115.13
1	S2	651	PSU	N1-C2-N3	6.00	121.93	115.13
1	S2	1004	PSU	N1-C2-N3	6.00	121.93	115.13
1	S2	109	PSU	N1-C2-N3	5.99	121.92	115.13
3	L5	3734	PSU	N1-C2-N3	5.99	121.92	115.13
3	L5	3758	PSU	N1-C2-N3	5.98	121.90	115.13
3	L5	1860	PSU	N1-C2-N3	5.97	121.90	115.13
3	L5	4579	PSU	N1-C2-N3	5.97	121.90	115.13
1	S2	296	PSU	N1-C2-N3	5.97	121.89	115.13
3	L5	4312	PSU	N1-C2-N3	5.97	121.89	115.13
3	L5	3920	PSU	N1-C2-N3	5.97	121.89	115.13
3	L5	1744	PSU	N1-C2-N3	5.96	121.89	115.13
1	S2	801	PSU	N1-C2-N3	5.96	121.89	115.13
1	S2	573	PSU	N1-C2-N3	5.96	121.88	115.13
1	S2	1326	UY1	N1-C2-N3	5.95	121.87	115.13
1	S2	1174	PSU	N1-C2-N3	5.94	121.86	115.13
3	L5	3639	PSU	N1-C2-N3	5.94	121.86	115.13
1	S2	1239	PSU	N1-C2-N3	5.94	121.86	115.13
1	S2	1643	PSU	N1-C2-N3	5.94	121.86	115.13
3	L5	4552	PSU	N1-C2-N3	5.93	121.85	115.13
1	S2	814	PSU	N1-C2-N3	5.91	121.83	115.13
1	S2	218	PSU	N1-C2-N3	5.91	121.83	115.13
81	Pt	56	PSU	N1-C2-N3	5.91	121.83	115.13
3	L5	1781	PSU	N1-C2-N3	5.91	121.83	115.13
3	L5	5001	PSU	N1-C2-N3	5.91	121.82	115.13
81	Pt	8	4SU	C5-C4-N3	5.90	120.16	114.69
3	L5	4531	PSU	N1-C2-N3	5.90	121.81	115.13
3	L5	4293	PSU	N1-C2-N3	5.88	121.79	115.13
3	L5	4361	PSU	N1-C2-N3	5.88	121.79	115.13
1	S2	93	PSU	N1-C2-N3	5.87	121.79	115.13
3	L5	3695	PSU	N1-C2-N3	5.87	121.79	115.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	S2	1625	PSU	N1-C2-N3	5.87	121.78	115.13
1	S2	1347	PSU	N1-C2-N3	5.86	121.77	115.13
3	L5	2632	PSU	N1-C2-N3	5.82	121.72	115.13
3	L5	4628	PSU	N1-C2-N3	5.73	121.63	115.13
3	L5	4420	PSU	N1-C2-N3	5.72	121.61	115.13
3	L5	3884	PSU	N1-C2-N3	5.69	121.58	115.13
1	S2	1248	B8N	C4-N3-C2	-5.08	119.04	125.46
81	Pt	21	H2U	C4-N3-C2	-4.92	121.71	125.79
3	L5	4227	OMU	C4-N3-C2	-4.84	120.20	126.58
3	L5	3925	OMU	C4-N3-C2	-4.77	120.29	126.58
1	S2	172	OMU	C4-N3-C2	-4.69	120.39	126.58
1	S2	428	OMU	C4-N3-C2	-4.63	120.47	126.58
1	S2	1804	OMU	C4-N3-C2	-4.63	120.47	126.58
3	L5	2837	OMU	C4-N3-C2	-4.63	120.47	126.58
3	L5	4447	5MC	C5-C6-N1	-4.61	118.59	123.34
1	S2	627	OMU	C4-N3-C2	-4.60	120.52	126.58
3	L5	3925	OMU	N3-C2-N1	4.58	120.98	114.89
1	S2	354	OMU	C4-N3-C2	-4.57	120.55	126.58
3	L5	2415	OMU	C4-N3-C2	-4.56	120.57	126.58
3	L5	4498	OMU	C4-N3-C2	-4.50	120.64	126.58
1	S2	1442	OMU	C4-N3-C2	-4.50	120.65	126.58
2	L8	14	OMU	C4-N3-C2	-4.49	120.65	126.58
3	L5	4531	PSU	C4-N3-C2	-4.47	119.89	126.34
3	L5	4227	OMU	N3-C2-N1	4.44	120.79	114.89
1	S2	121	OMU	C4-N3-C2	-4.43	120.73	126.58
3	L5	4620	OMU	N3-C2-N1	4.39	120.72	114.89
3	L5	2837	OMU	N3-C2-N1	4.38	120.71	114.89
1	S2	116	OMU	C4-N3-C2	-4.36	120.83	126.58
3	L5	4620	OMU	C4-N3-C2	-4.35	120.85	126.58
3	L5	4306	OMU	C4-N3-C2	-4.32	120.88	126.58
1	S2	1804	OMU	N3-C2-N1	4.31	120.61	114.89
3	L5	3818	UY1	C4-N3-C2	-4.27	120.19	126.34
2	L8	14	OMU	N3-C2-N1	4.27	120.55	114.89
3	L5	2508	PSU	C4-N3-C2	-4.26	120.20	126.34
1	S2	121	OMU	N3-C2-N1	4.26	120.54	114.89
3	L5	1862	PSU	C4-N3-C2	-4.25	120.22	126.34
6	SA	2	SAC	C2A-C1A-N	-4.24	108.92	116.10
3	L5	4299	PSU	C4-N3-C2	-4.24	120.23	126.34
3	L5	2415	OMU	N3-C2-N1	4.22	120.49	114.89
1	S2	172	OMU	N3-C2-N1	4.21	120.47	114.89
3	L5	4673	PSU	C4-N3-C2	-4.20	120.29	126.34
3	L5	4471	PSU	C4-N3-C2	-4.19	120.30	126.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	L5	2839	PSU	C4-N3-C2	-4.19	120.30	126.34
3	L5	1792	PSU	C4-N3-C2	-4.19	120.30	126.34
3	L5	4498	OMU	N3-C2-N1	4.18	120.44	114.89
3	L5	4457	PSU	C4-N3-C2	-4.16	120.34	126.34
3	L5	3920	PSU	C4-N3-C2	-4.15	120.36	126.34
3	L5	4532	PSU	C4-N3-C2	-4.14	120.37	126.34
1	S2	354	OMU	N3-C2-N1	4.14	120.38	114.89
1	S2	1056	PSU	C4-N3-C2	-4.14	120.38	126.34
3	L5	3770	PSU	C4-N3-C2	-4.13	120.39	126.34
3	L5	4569	PSU	C4-N3-C2	-4.13	120.39	126.34
3	L5	4532	PSU	O2-C2-N1	-4.12	118.25	122.79
3	L5	4296	PSU	C4-N3-C2	-4.12	120.40	126.34
3	L5	4442	PSU	C4-N3-C2	-4.12	120.40	126.34
3	L5	1536	PSU	C4-N3-C2	-4.11	120.42	126.34
1	S2	651	PSU	C4-N3-C2	-4.10	120.43	126.34
3	L5	4423	PSU	C4-N3-C2	-4.10	120.43	126.34
1	S2	1445	PSU	C4-N3-C2	-4.10	120.43	126.34
1	S2	866	PSU	C4-N3-C2	-4.10	120.44	126.34
1	S2	681	PSU	C4-N3-C2	-4.10	120.44	126.34
1	S2	627	OMU	N3-C2-N1	4.10	120.33	114.89
3	L5	1779	PSU	C4-N3-C2	-4.09	120.44	126.34
1	S2	1244	PSU	C4-N3-C2	-4.09	120.44	126.34
1	S2	119	PSU	C4-N3-C2	-4.09	120.45	126.34
3	L5	1683	PSU	C4-N3-C2	-4.08	120.46	126.34
1	S2	1442	OMU	N3-C2-N1	4.08	120.31	114.89
3	L5	4500	PSU	C4-N3-C2	-4.08	120.46	126.34
1	S2	572	PSU	C4-N3-C2	-4.08	120.46	126.34
1	S2	406	PSU	C4-N3-C2	-4.08	120.46	126.34
3	L5	4293	PSU	C4-N3-C2	-4.08	120.47	126.34
3	L5	3637	PSU	C4-N3-C2	-4.07	120.47	126.34
1	S2	105	PSU	C4-N3-C2	-4.07	120.47	126.34
3	L5	3768	PSU	C4-N3-C2	-4.07	120.47	126.34
1	S2	1326	UY1	C4-N3-C2	-4.07	120.47	126.34
3	L5	2843	PSU	C4-N3-C2	-4.06	120.48	126.34
3	L5	1782	PSU	C4-N3-C2	-4.06	120.49	126.34
1	S2	1177	PSU	C4-N3-C2	-4.06	120.49	126.34
1	S2	1238	PSU	C4-N3-C2	-4.05	120.50	126.34
1	S2	116	OMU	N3-C2-N1	4.05	120.27	114.89
1	S2	1692	PSU	C4-N3-C2	-4.05	120.50	126.34
1	S2	93	PSU	C4-N3-C2	-4.05	120.51	126.34
3	L5	3639	PSU	C4-N3-C2	-4.05	120.51	126.34
3	L5	3729	PSU	C4-N3-C2	-4.05	120.51	126.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	L5	1781	PSU	C4-N3-C2	-4.04	120.51	126.34
1	S2	686	PSU	C4-N3-C2	-4.04	120.52	126.34
3	L5	1677	PSU	C4-N3-C2	-4.03	120.53	126.34
3	L5	3695	PSU	C4-N3-C2	-4.03	120.53	126.34
1	S2	863	PSU	C4-N3-C2	-4.03	120.53	126.34
3	L5	3758	PSU	C4-N3-C2	-4.03	120.53	126.34
1	S2	1136	PSU	C4-N3-C2	-4.03	120.53	126.34
3	L5	5001	PSU	C4-N3-C2	-4.03	120.53	126.34
1	S2	428	OMU	N3-C2-N1	4.03	120.24	114.89
1	S2	1347	PSU	C4-N3-C2	-4.02	120.54	126.34
3	L5	4521	PSU	C4-N3-C2	-4.02	120.55	126.34
1	S2	1174	PSU	C4-N3-C2	-4.02	120.55	126.34
1	S2	296	PSU	C4-N3-C2	-4.01	120.56	126.34
1	S2	1643	PSU	C4-N3-C2	-4.01	120.56	126.34
3	L5	4972	PSU	C4-N3-C2	-4.01	120.56	126.34
1	S2	1239	PSU	C4-N3-C2	-4.01	120.57	126.34
1	S2	649	PSU	C4-N3-C2	-4.00	120.57	126.34
1	S2	36	PSU	C4-N3-C2	-4.00	120.57	126.34
3	L5	1582	PSU	C4-N3-C2	-4.00	120.57	126.34
2	L8	55	PSU	C4-N3-C2	-3.99	120.58	126.34
3	L5	3764	PSU	C4-N3-C2	-3.99	120.59	126.34
1	S2	801	PSU	C4-N3-C2	-3.99	120.59	126.34
3	L5	4306	OMU	N3-C2-N1	3.99	120.18	114.89
3	L5	4552	PSU	C4-N3-C2	-3.98	120.60	126.34
3	L5	4403	PSU	C4-N3-C2	-3.98	120.60	126.34
3	L5	3715	PSU	C4-N3-C2	-3.98	120.60	126.34
3	L5	5010	PSU	C4-N3-C2	-3.98	120.61	126.34
1	S2	34	PSU	C4-N3-C2	-3.97	120.62	126.34
1	S2	1367	PSU	C4-N3-C2	-3.97	120.62	126.34
81	Pt	56	PSU	C4-N3-C2	-3.97	120.62	126.34
2	L8	69	PSU	C4-N3-C2	-3.96	120.63	126.34
3	L5	4579	PSU	C4-N3-C2	-3.96	120.63	126.34
1	S2	1243	PSU	C4-N3-C2	-3.96	120.63	126.34
3	L5	3734	PSU	C4-N3-C2	-3.96	120.64	126.34
3	L5	4312	PSU	C4-N3-C2	-3.95	120.64	126.34
1	S2	815	PSU	C4-N3-C2	-3.95	120.65	126.34
3	L5	4576	PSU	C4-N3-C2	-3.95	120.65	126.34
29	SV	1	AME	CT2-CT1-N	-3.95	109.41	116.10
1	S2	1004	PSU	C4-N3-C2	-3.95	120.65	126.34
81	Pt	8	4SU	N3-C2-N1	3.95	120.13	114.89
1	S2	609	PSU	C4-N3-C2	-3.95	120.65	126.34
3	L5	3853	PSU	C4-N3-C2	-3.94	120.66	126.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	S2	109	PSU	C4-N3-C2	-3.94	120.66	126.34
3	L5	4689	PSU	C4-N3-C2	-3.94	120.66	126.34
1	S2	822	PSU	C4-N3-C2	-3.94	120.66	126.34
3	L5	4353	PSU	C4-N3-C2	-3.94	120.67	126.34
1	S2	1288	OMU	C4-N3-C2	-3.93	121.40	126.58
3	L5	3762	PSU	C4-N3-C2	-3.92	120.69	126.34
3	L5	4457	PSU	O2-C2-N1	-3.92	118.48	122.79
1	S2	1232	PSU	C4-N3-C2	-3.92	120.70	126.34
3	L5	3782	5MC	C5-C6-N1	-3.91	119.31	123.34
3	L5	3844	PSU	C4-N3-C2	-3.91	120.70	126.34
1	S2	1081	PSU	C4-N3-C2	-3.91	120.70	126.34
3	L5	4493	PSU	C4-N3-C2	-3.91	120.71	126.34
3	L5	4361	PSU	C4-N3-C2	-3.89	120.73	126.34
1	S2	218	PSU	C4-N3-C2	-3.89	120.73	126.34
3	L5	3851	PSU	C4-N3-C2	-3.89	120.74	126.34
1	S2	573	PSU	C4-N3-C2	-3.88	120.75	126.34
1	S2	918	PSU	C4-N3-C2	-3.87	120.76	126.34
3	L5	1860	PSU	C4-N3-C2	-3.87	120.76	126.34
1	S2	1625	PSU	C4-N3-C2	-3.87	120.77	126.34
3	L5	3920	PSU	O2-C2-N1	-3.85	118.55	122.79
3	L5	1744	PSU	C4-N3-C2	-3.84	120.81	126.34
1	S2	354	OMU	C5-C4-N3	3.83	120.57	114.84
1	S2	966	PSU	C4-N3-C2	-3.80	120.86	126.34
3	L5	4227	OMU	C5-C4-N3	3.80	120.53	114.84
81	Pt	8	4SU	C5-C4-S4	-3.80	119.58	124.47
1	S2	814	PSU	C4-N3-C2	-3.79	120.88	126.34
1	S2	1288	OMU	N3-C2-N1	3.78	119.91	114.89
3	L5	4636	PSU	C4-N3-C2	-3.78	120.90	126.34
3	L5	4628	PSU	C4-N3-C2	-3.75	120.93	126.34
3	L5	4431	PSU	C4-N3-C2	-3.72	120.98	126.34
3	L5	3925	OMU	C5-C4-N3	3.71	120.40	114.84
3	L5	4420	PSU	C4-N3-C2	-3.71	120.99	126.34
3	L5	4306	OMU	C5-C4-N3	3.70	120.38	114.84
3	L5	2632	PSU	C4-N3-C2	-3.70	121.01	126.34
3	L5	2415	OMU	C5-C4-N3	3.69	120.36	114.84
1	S2	428	OMU	C5-C4-N3	3.68	120.35	114.84
2	L8	14	OMU	C5-C4-N3	3.67	120.34	114.84
1	S2	172	OMU	C5-C4-N3	3.67	120.34	114.84
3	L5	4576	PSU	O2-C2-N1	-3.67	118.75	122.79
1	S2	822	PSU	O2-C2-N1	-3.66	118.76	122.79
3	L5	4498	OMU	C5-C4-N3	3.65	120.30	114.84
3	L5	4500	PSU	O2-C2-N1	-3.64	118.78	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	S2	1804	OMU	C5-C4-N3	3.64	120.28	114.84
1	S2	1442	OMU	C5-C4-N3	3.63	120.27	114.84
3	L5	2837	OMU	C5-C4-N3	3.62	120.26	114.84
1	S2	627	OMU	C5-C4-N3	3.60	120.23	114.84
1	S2	1244	PSU	O2-C2-N1	-3.60	118.83	122.79
3	L5	3785	A2M	N3-C2-N1	-3.60	123.05	128.68
1	S2	116	OMU	C5-C4-N3	3.59	120.21	114.84
1	S2	121	OMU	C5-C4-N3	3.59	120.21	114.84
3	L5	3853	PSU	O2-C2-N1	-3.58	118.85	122.79
3	L5	1862	PSU	O2-C2-N1	-3.57	118.86	122.79
2	L8	69	PSU	O2-C2-N1	-3.56	118.87	122.79
3	L5	3729	PSU	O2-C2-N1	-3.55	118.88	122.79
3	L5	3818	UY1	O2-C2-N1	-3.55	118.88	122.79
1	S2	1445	PSU	O2-C2-N1	-3.55	118.89	122.79
3	L5	3762	PSU	O2-C2-N1	-3.54	118.89	122.79
3	L5	1582	PSU	O2-C2-N1	-3.54	118.89	122.79
3	L5	4590	A2M	N3-C2-N1	-3.53	123.16	128.68
1	S2	1851	MA6	N3-C2-N1	-3.51	123.19	128.68
1	S2	1031	A2M	N3-C2-N1	-3.49	123.23	128.68
3	L5	3768	PSU	O2-C2-N1	-3.48	118.95	122.79
3	L5	4579	PSU	O2-C2-N1	-3.48	118.96	122.79
3	L5	4403	PSU	O2-C2-N1	-3.48	118.96	122.79
3	L5	3844	PSU	O2-C2-N1	-3.47	118.97	122.79
3	L5	3715	PSU	O2-C2-N1	-3.46	118.98	122.79
3	L5	1871	A2M	N3-C2-N1	-3.46	123.27	128.68
1	S2	686	PSU	O2-C2-N1	-3.46	118.98	122.79
1	S2	649	PSU	O2-C2-N1	-3.46	118.98	122.79
3	L5	4620	OMU	C5-C4-N3	3.46	120.02	114.84
1	S2	668	A2M	N3-C2-N1	-3.45	123.28	128.68
1	S2	609	PSU	O2-C2-N1	-3.45	118.99	122.79
3	L5	3764	PSU	O2-C2-N1	-3.45	118.99	122.79
3	L5	3884	PSU	C4-N3-C2	-3.45	121.37	126.34
3	L5	3734	PSU	O2-C2-N1	-3.44	119.00	122.79
81	Pt	56	PSU	O2-C2-N1	-3.44	119.00	122.79
1	S2	1232	PSU	O2-C2-N1	-3.44	119.00	122.79
1	S2	863	PSU	O2-C2-N1	-3.43	119.01	122.79
3	L5	1683	PSU	O2-C2-N1	-3.43	119.01	122.79
1	S2	1288	OMU	C5-C4-N3	3.42	119.96	114.84
1	S2	1243	PSU	O2-C2-N1	-3.42	119.02	122.79
1	S2	119	PSU	O2-C2-N1	-3.42	119.03	122.79
3	L5	4420	PSU	O2-C2-N1	-3.42	119.03	122.79
1	S2	918	PSU	O2-C2-N1	-3.42	119.03	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	S2	36	PSU	O2-C2-N1	-3.42	119.03	122.79
3	L5	4423	PSU	O2-C2-N1	-3.42	119.03	122.79
1	S2	512	A2M	N3-C2-N1	-3.41	123.34	128.68
3	L5	4628	PSU	O2-C2-N1	-3.41	119.03	122.79
3	L5	4552	PSU	O2-C2-N1	-3.41	119.04	122.79
3	L5	4296	PSU	O2-C2-N1	-3.40	119.04	122.79
1	S2	1004	PSU	O2-C2-N1	-3.39	119.06	122.79
3	L5	1779	PSU	O2-C2-N1	-3.39	119.06	122.79
1	S2	34	PSU	O2-C2-N1	-3.38	119.06	122.79
1	S2	1692	PSU	O2-C2-N1	-3.38	119.07	122.79
1	S2	109	PSU	O2-C2-N1	-3.37	119.08	122.79
3	L5	4361	PSU	O2-C2-N1	-3.37	119.08	122.79
1	S2	1238	PSU	O2-C2-N1	-3.36	119.09	122.79
1	S2	1850	MA6	N3-C2-N1	-3.36	123.42	128.68
3	L5	4673	PSU	O2-C2-N1	-3.36	119.09	122.79
1	S2	1347	PSU	O2-C2-N1	-3.36	119.09	122.79
3	L5	4220	6MZ	N3-C2-N1	-3.36	123.43	128.68
3	L5	4521	PSU	O2-C2-N1	-3.35	119.10	122.79
1	S2	1851	MA6	C4-C5-N7	-3.35	105.91	109.40
1	S2	866	PSU	O2-C2-N1	-3.35	119.11	122.79
3	L5	5010	PSU	O2-C2-N1	-3.34	119.11	122.79
1	S2	1326	UY1	O2-C2-N1	-3.34	119.11	122.79
1	S2	815	PSU	O2-C2-N1	-3.34	119.11	122.79
1	S2	296	PSU	O2-C2-N1	-3.33	119.12	122.79
1	S2	1643	PSU	O2-C2-N1	-3.33	119.12	122.79
3	L5	4442	PSU	O2-C2-N1	-3.33	119.12	122.79
3	L5	3851	PSU	O2-C2-N1	-3.32	119.13	122.79
1	S2	573	PSU	O2-C2-N1	-3.32	119.13	122.79
3	L5	4293	PSU	O2-C2-N1	-3.32	119.13	122.79
3	L5	3867	A2M	N3-C2-N1	-3.32	123.49	128.68
1	S2	572	PSU	O2-C2-N1	-3.31	119.14	122.79
1	S2	1367	PSU	O2-C2-N1	-3.31	119.15	122.79
1	S2	651	PSU	O2-C2-N1	-3.30	119.16	122.79
3	L5	4689	PSU	O2-C2-N1	-3.30	119.16	122.79
1	S2	1832	6MZ	N3-C2-N1	-3.30	123.53	128.68
1	S2	1239	PSU	O2-C2-N1	-3.29	119.17	122.79
1	S2	1056	PSU	O2-C2-N1	-3.29	119.17	122.79
1	S2	93	PSU	O2-C2-N1	-3.28	119.17	122.79
3	L5	4312	PSU	O2-C2-N1	-3.28	119.17	122.79
1	S2	1383	A2M	N3-C2-N1	-3.28	123.54	128.68
3	L5	1792	PSU	O2-C2-N1	-3.28	119.17	122.79
3	L5	1860	PSU	O2-C2-N1	-3.28	119.18	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	L5	4523	A2M	N3-C2-N1	-3.27	123.57	128.68
3	L5	1677	PSU	O2-C2-N1	-3.27	119.19	122.79
1	S2	218	PSU	O2-C2-N1	-3.26	119.20	122.79
1	S2	1625	PSU	O2-C2-N1	-3.26	119.20	122.79
1	S2	1850	MA6	C4-C5-N7	-3.26	106.01	109.40
3	L5	4431	PSU	O2-C2-N1	-3.25	119.21	122.79
3	L5	2839	PSU	O2-C2-N1	-3.25	119.21	122.79
3	L5	398	A2M	N3-C2-N1	-3.25	123.59	128.68
3	L5	1781	PSU	O2-C2-N1	-3.25	119.21	122.79
3	L5	3770	PSU	O2-C2-N1	-3.25	119.22	122.79
1	S2	1136	PSU	O2-C2-N1	-3.25	119.22	122.79
1	S2	166	A2M	N3-C2-N1	-3.25	123.60	128.68
1	S2	1177	PSU	O2-C2-N1	-3.24	119.22	122.79
3	L5	1782	PSU	O2-C2-N1	-3.24	119.23	122.79
1	S2	1337	4AC	N4-C4-N3	3.24	119.28	113.85
1	S2	105	PSU	O2-C2-N1	-3.23	119.23	122.79
1	S2	966	PSU	O2-C2-N1	-3.22	119.24	122.79
3	L5	3758	PSU	O2-C2-N1	-3.22	119.24	122.79
3	L5	2632	PSU	O2-C2-N1	-3.22	119.24	122.79
1	S2	1678	A2M	N3-C2-N1	-3.22	123.64	128.68
3	L5	4636	PSU	O2-C2-N1	-3.22	119.25	122.79
3	L5	2815	A2M	N3-C2-N1	-3.22	123.65	128.68
1	S2	468	A2M	N3-C2-N1	-3.21	123.66	128.68
3	L5	3825	A2M	N3-C2-N1	-3.20	123.67	128.68
3	L5	4571	A2M	N3-C2-N1	-3.20	123.67	128.68
3	L5	2787	A2M	N3-C2-N1	-3.20	123.67	128.68
1	S2	27	A2M	N3-C2-N1	-3.20	123.68	128.68
1	S2	406	PSU	O2-C2-N1	-3.20	119.27	122.79
3	L5	1534	A2M	N3-C2-N1	-3.19	123.69	128.68
3	L5	1536	PSU	O2-C2-N1	-3.18	119.29	122.79
3	L5	3724	A2M	N3-C2-N1	-3.17	123.72	128.68
3	L5	4493	PSU	O2-C2-N1	-3.17	119.30	122.79
1	S2	814	PSU	O2-C2-N1	-3.17	119.30	122.79
1	S2	576	A2M	N3-C2-N1	-3.17	123.73	128.68
1	S2	484	A2M	N3-C2-N1	-3.16	123.74	128.68
1	S2	590	A2M	N3-C2-N1	-3.15	123.75	128.68
3	L5	3639	PSU	O2-C2-N1	-3.15	119.32	122.79
3	L5	3723	A2M	N3-C2-N1	-3.15	123.76	128.68
1	S2	1288	OMU	C1'-N1-C2	3.14	123.26	117.57
3	L5	2363	A2M	N3-C2-N1	-3.14	123.77	128.68
3	L5	3760	A2M	N3-C2-N1	-3.14	123.77	128.68
1	S2	801	PSU	O2-C2-N1	-3.14	119.34	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
63	Lr	2	SAC	C2A-C1A-N	-3.14	110.79	116.10
3	L5	4972	PSU	O2-C2-N1	-3.14	119.34	122.79
3	L5	2508	PSU	O2-C2-N1	-3.13	119.34	122.79
1	S2	1174	PSU	O2-C2-N1	-3.11	119.36	122.79
1	S2	116	OMU	O4-C4-C5	-3.11	119.70	125.16
1	S2	462	OMC	C2'-C1'-N1	-3.10	108.21	114.22
3	L5	2401	A2M	N3-C2-N1	-3.09	123.84	128.68
1	S2	428	OMU	O4-C4-C5	-3.08	119.75	125.16
1	S2	1442	OMU	O4-C4-C5	-3.07	119.76	125.16
1	S2	159	A2M	N3-C2-N1	-3.07	123.89	128.68
3	L5	4569	PSU	O2-C2-N1	-3.06	119.42	122.79
3	L5	1744	PSU	O2-C2-N1	-3.05	119.44	122.79
1	S2	1248	B8N	C31-N3-C4	3.05	121.80	117.31
1	S2	1081	PSU	O2-C2-N1	-3.05	119.44	122.79
3	L5	4353	PSU	O2-C2-N1	-3.04	119.44	122.79
1	S2	99	A2M	N3-C2-N1	-3.04	123.92	128.68
1	S2	121	OMU	O4-C4-C5	-3.04	119.81	125.16
3	L5	3695	PSU	O2-C2-N1	-3.04	119.44	122.79
3	L5	400	A2M	N3-C2-N1	-3.03	123.94	128.68
3	L5	1524	A2M	N3-C2-N1	-3.03	123.94	128.68
1	S2	627	OMU	O4-C4-C5	-3.03	119.83	125.16
3	L5	4471	PSU	O2-C2-N1	-3.02	119.47	122.79
3	L5	3830	A2M	N3-C2-N1	-3.01	123.97	128.68
1	S2	354	OMU	O4-C4-C5	-3.00	119.88	125.16
2	L8	55	PSU	O2-C2-N1	-2.99	119.50	122.79
1	S2	1842	4AC	C6-C5-C4	2.99	120.61	116.96
1	S2	1248	B8N	N3-C2-N1	2.98	120.97	116.76
3	L5	4498	OMU	O4-C4-C5	-2.98	119.91	125.16
1	S2	681	PSU	O2-C2-N1	-2.97	119.52	122.79
3	L5	4299	PSU	O2-C2-N1	-2.97	119.53	122.79
1	S2	172	OMU	O4-C4-C5	-2.95	119.98	125.16
3	L5	4227	OMU	O4-C4-C5	-2.94	120.00	125.16
3	L5	5001	PSU	O2-C2-N1	-2.93	119.56	122.79
1	S2	1804	OMU	O4-C4-C5	-2.93	120.01	125.16
1	S2	1832	6MZ	C4-C5-N7	-2.91	106.36	109.40
3	L5	2415	OMU	O4-C4-C5	-2.91	120.05	125.16
1	S2	1288	OMU	O4-C4-C5	-2.89	120.08	125.16
3	L5	2787	A2M	C4-C5-N7	-2.87	106.41	109.40
3	L5	1326	A2M	N3-C2-N1	-2.87	124.19	128.68
3	L5	4220	6MZ	C9-N6-C6	-2.83	120.44	122.87
1	S2	576	A2M	C4-C5-N7	-2.78	106.50	109.40
1	S2	159	A2M	C4-C5-N7	-2.78	106.50	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	L5	4306	OMU	O4-C4-C5	-2.77	120.28	125.16
3	L5	398	A2M	C4-C5-N7	-2.77	106.52	109.40
3	L5	1534	A2M	C4-C5-N7	-2.76	106.52	109.40
1	S2	1031	A2M	C4-C5-N7	-2.75	106.53	109.40
3	L5	3825	A2M	C4-C5-N7	-2.74	106.55	109.40
1	S2	166	A2M	C4-C5-N7	-2.73	106.55	109.40
3	L5	2837	OMU	O4-C4-C5	-2.72	120.37	125.16
3	L5	1524	A2M	C4-C5-N7	-2.72	106.57	109.40
3	L5	2815	A2M	C4-C5-N7	-2.71	106.58	109.40
1	S2	99	A2M	C4-C5-N7	-2.71	106.58	109.40
1	S2	468	A2M	C4-C5-N7	-2.71	106.58	109.40
3	L5	3830	A2M	C4-C5-N7	-2.70	106.59	109.40
3	L5	400	A2M	C4-C5-N7	-2.69	106.59	109.40
3	L5	4620	OMU	O4-C4-C5	-2.69	120.44	125.16
3	L5	4590	A2M	C4-C5-N7	-2.68	106.61	109.40
3	L5	2401	A2M	C4-C5-N7	-2.68	106.61	109.40
49	La	39	V5N	O-C-CA	-2.67	117.79	124.78
1	S2	484	A2M	C4-C5-N7	-2.66	106.62	109.40
3	L5	1326	A2M	C4-C5-N7	-2.66	106.63	109.40
1	S2	1639	G7M	CN7-N7-C8	-2.66	112.64	125.43
1	S2	668	A2M	C4-C5-N7	-2.64	106.64	109.40
3	L5	3723	A2M	C4-C5-N7	-2.64	106.65	109.40
1	S2	590	A2M	C4-C5-N7	-2.64	106.65	109.40
3	L5	3718	A2M	C4-C5-N7	-2.63	106.66	109.40
3	L5	3718	A2M	N3-C2-N1	-2.63	124.56	128.68
3	L5	3724	A2M	C4-C5-N7	-2.63	106.66	109.40
3	L5	2837	OMU	O2-C2-N1	-2.63	119.30	122.79
1	S2	1678	A2M	C4-C5-N7	-2.61	106.68	109.40
3	L5	3925	OMU	O2-C2-N1	-2.60	119.33	122.79
1	S2	1383	A2M	C4-C5-N7	-2.59	106.69	109.40
3	L5	2363	A2M	C4-C5-N7	-2.59	106.70	109.40
3	L5	3925	OMU	O4-C4-C5	-2.58	120.62	125.16
3	L5	2843	PSU	O2-C2-N1	-2.56	119.97	122.79
1	S2	1842	4AC	C5-C4-N3	-2.56	118.48	122.59
3	L5	1322	1MA	C5-C6-N1	2.55	117.70	113.90
29	SV	1	AME	CE-SD-CG	2.54	109.14	100.40
3	L5	4571	A2M	C4-C5-N7	-2.54	106.75	109.40
3	L5	3637	PSU	O2-C2-N1	-2.54	120.00	122.79
3	L5	3884	PSU	O2-C2-N1	-2.53	120.00	122.79
3	L5	3867	A2M	C4-C5-N7	-2.53	106.76	109.40
3	L5	3760	A2M	C4-C5-N7	-2.52	106.77	109.40
3	L5	1522	OMG	C5-C6-N1	2.52	118.41	113.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	L5	4498	OMU	O2-C2-N1	-2.52	119.44	122.79
1	S2	27	A2M	C4-C5-N7	-2.51	106.79	109.40
3	L5	3782	5MC	C5-C4-N3	-2.50	118.98	121.67
1	S2	512	A2M	C4-C5-N7	-2.50	106.80	109.40
1	S2	1842	4AC	N4-C4-N3	2.49	118.03	113.85
3	L5	4618	OMG	C5-C6-N1	2.48	118.33	113.95
3	L5	3899	OMG	C5-C6-N1	2.48	118.32	113.95
2	L8	14	OMU	O4-C4-C5	-2.47	120.81	125.16
3	L5	4392	OMG	C8-N7-C5	2.46	107.69	102.99
3	L5	4494	OMG	C5-C6-N1	2.46	118.30	113.95
3	L5	3627	OMG	C8-N7-C5	2.46	107.67	102.99
3	L5	4523	A2M	C4-C5-N7	-2.45	106.85	109.40
2	L8	14	OMU	O2-C2-N1	-2.44	119.54	122.79
3	L5	3627	OMG	C5-C6-N1	2.44	118.25	113.95
3	L5	4620	OMU	O2-C2-N1	-2.43	119.56	122.79
1	S2	644	OMG	C8-N7-C5	2.43	107.61	102.99
3	L5	4370	OMG	C8-N7-C5	2.42	107.61	102.99
1	S2	116	OMU	O2-C2-N1	-2.42	119.58	122.79
3	L5	4623	OMG	C8-N7-C5	2.41	107.58	102.99
2	L8	75	OMG	C5-C6-N1	2.41	118.20	113.95
3	L5	3899	OMG	C8-N7-C5	2.41	107.58	102.99
1	S2	1447	OMG	C8-N7-C5	2.40	107.56	102.99
3	L5	3944	OMG	C8-N7-C5	2.40	107.56	102.99
3	L5	4499	OMG	C8-N7-C5	2.39	107.55	102.99
1	S2	683	OMG	C5-C6-N1	2.39	118.17	113.95
3	L5	4623	OMG	C5-C6-N1	2.38	118.15	113.95
3	L5	4228	OMG	C8-N7-C5	2.37	107.51	102.99
1	S2	1031	A2M	C2-N1-C6	2.37	122.81	118.75
3	L5	2351	OMC	O2-C2-N3	-2.37	118.48	122.33
1	S2	1337	4AC	C6-C5-C4	2.36	119.85	116.96
3	L5	2876	OMG	C5-C6-N1	2.36	118.12	113.95
1	S2	1328	OMG	C8-N7-C5	2.36	107.49	102.99
3	L5	4531	PSU	C5-C6-N1	-2.36	118.57	122.11
3	L5	3744	OMG	C5-C6-N1	2.36	118.11	113.95
3	L5	4196	OMG	C5-C6-N1	2.36	118.11	113.95
3	L5	3744	OMG	C8-N7-C5	2.35	107.47	102.99
3	L5	4392	OMG	C5-C6-N1	2.35	118.10	113.95
3	L5	1522	OMG	O6-C6-C5	-2.34	119.79	124.37
1	S2	172	OMU	O2-C2-N1	-2.34	119.67	122.79
1	S2	644	OMG	C5-C6-N1	2.34	118.09	113.95
1	S2	1248	B8N	O36-C34-O35	-2.33	118.79	124.09
3	L5	3944	OMG	C5-C6-N1	2.33	118.07	113.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	S2	627	OMU	O2-C2-N1	-2.33	119.69	122.79
1	S2	121	OMU	O2-C2-N1	-2.33	119.69	122.79
3	L5	1625	OMG	C5-C6-N1	2.33	118.06	113.95
1	S2	428	OMU	O2-C2-N1	-2.33	119.69	122.79
1	S2	436	OMG	C5-C6-N1	2.32	118.05	113.95
3	L5	1522	OMG	C8-N7-C5	2.32	107.41	102.99
3	L5	4531	PSU	O2-C2-N1	-2.32	120.24	122.79
1	S2	1804	OMU	O2-C2-N1	-2.31	119.71	122.79
3	L5	4618	OMG	C8-N7-C5	2.31	107.40	102.99
3	L5	3770	PSU	C3'-C2'-C1'	2.31	104.33	101.64
1	S2	867	OMG	C8-N7-C5	2.31	107.39	102.99
1	S2	1490	OMG	C5-C6-N1	2.31	118.03	113.95
3	L5	3818	UY1	C5-C6-N1	-2.31	118.65	122.11
3	L5	1316	OMG	C8-N7-C5	2.30	107.37	102.99
1	S2	436	OMG	C8-N7-C5	2.30	107.37	102.99
1	S2	1447	OMG	C5-C6-N1	2.29	118.00	113.95
3	L5	4637	OMG	C8-N7-C5	2.29	107.36	102.99
3	L5	4499	OMG	C5-C6-N1	2.29	117.99	113.95
1	S2	683	OMG	C8-N7-C5	2.28	107.33	102.99
1	S2	509	OMG	C5-C6-N1	2.27	117.97	113.95
2	L8	69	PSU	O4'-C1'-C2'	2.27	108.35	105.14
3	L5	4447	5MC	C5-C4-N3	-2.27	119.22	121.67
1	S2	601	OMG	C8-N7-C5	2.27	107.32	102.99
3	L5	4227	OMU	O2-C2-N1	-2.27	119.77	122.79
3	L5	4220	6MZ	C4-C5-N7	-2.27	107.03	109.40
3	L5	4637	OMG	C5-C6-N1	2.27	117.95	113.95
1	S2	867	OMG	C5-C6-N1	2.26	117.95	113.95
1	S2	1328	OMG	C5-C6-N1	2.26	117.94	113.95
3	L5	2876	OMG	C8-N7-C5	2.26	107.30	102.99
3	L5	4228	OMG	C5-C6-N1	2.25	117.93	113.95
1	S2	509	OMG	C8-N7-C5	2.25	107.27	102.99
3	L5	2364	OMG	C5-C6-N1	2.25	117.92	113.95
3	L5	4403	PSU	O4'-C1'-C2'	2.24	108.31	105.14
1	S2	822	PSU	O4'-C1'-C2'	2.24	108.31	105.14
3	L5	4530	UR3	C3U-N3-C4	2.24	121.09	117.89
3	L5	3637	PSU	O2-C2-N3	-2.24	117.59	121.82
81	Pt	21	H2U	C5-C6-N1	-2.24	104.24	111.61
3	L5	1871	A2M	C4-C5-N7	-2.23	107.08	109.40
1	S2	601	OMG	C5-C6-N1	2.22	117.88	113.95
3	L5	2424	OMG	C5-C6-N1	2.22	117.87	113.95
2	L8	75	OMG	C8-N7-C5	2.22	107.22	102.99
3	L5	2839	PSU	C5-C6-N1	-2.21	118.80	122.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	S2	1490	OMG	C8-N7-C5	2.21	107.19	102.99
3	L5	3792	OMG	C5-C6-N1	2.21	117.85	113.95
3	L5	4494	OMG	C8-N7-C5	2.20	107.18	102.99
3	L5	2508	PSU	C5-C6-N1	-2.19	118.82	122.11
3	L5	4370	OMG	C5-C6-N1	2.19	117.81	113.95
3	L5	2364	OMG	C8-N7-C5	2.19	107.15	102.99
3	L5	3785	A2M	C1'-N9-C4	-2.19	122.80	126.64
3	L5	1625	OMG	C8-N7-C5	2.18	107.14	102.99
3	L5	3627	OMG	O6-C6-C5	-2.17	120.12	124.37
38	LA	216	V5N	O-C-CA	-2.16	119.11	124.78
3	L5	4471	PSU	C5-C6-N1	-2.16	118.86	122.11
1	S2	354	OMU	O2-C2-N1	-2.16	119.92	122.79
3	L5	4196	OMG	C8-N7-C5	2.15	107.09	102.99
1	S2	1248	B8N	O4'-C1'-C2'	2.15	108.18	105.14
3	L5	2843	PSU	C5-C6-N1	-2.15	118.89	122.11
3	L5	4532	PSU	C6-N1-C2	-2.14	120.50	122.68
1	S2	1445	PSU	C5-C6-N1	-2.14	118.90	122.11
1	S2	681	PSU	C5-C6-N1	-2.12	118.92	122.11
3	L5	3792	OMG	C8-N7-C5	2.12	107.03	102.99
3	L5	3695	PSU	C5-C6-N1	-2.12	118.94	122.11
1	S2	1177	PSU	C5-C6-N1	-2.11	118.94	122.11
3	L5	3770	PSU	C5-C6-N1	-2.11	118.94	122.11
3	L5	3920	PSU	C5-C6-N1	-2.10	118.95	122.11
3	L5	4442	PSU	O4'-C1'-C2'	2.10	108.11	105.14
3	L5	4494	OMG	O6-C6-C5	-2.10	120.28	124.37
1	S2	1326	UY1	C5-C6-N1	-2.09	118.97	122.11
3	L5	2424	OMG	C8-N7-C5	2.09	106.97	102.99
1	S2	801	PSU	C5-C6-N1	-2.09	118.97	122.11
3	L5	1534	A2M	O3'-C3'-C4'	-2.09	105.01	111.05
1	S2	1850	MA6	N1-C6-N6	2.09	119.25	117.06
3	L5	3785	A2M	O4'-C4'-C3'	2.09	109.24	105.11
3	L5	4521	PSU	O4'-C1'-C2'	2.08	108.08	105.14
1	S2	572	PSU	C5-C6-N1	-2.08	118.98	122.11
3	L5	3637	PSU	C5-C6-N1	-2.08	119.00	122.11
3	L5	4590	A2M	C2-N1-C6	2.07	122.30	118.75
1	S2	1643	PSU	C5-C6-N1	-2.07	119.00	122.11
3	L5	1862	PSU	C5-C6-N1	-2.07	119.00	122.11
3	L5	4423	PSU	C5-C6-N1	-2.07	119.00	122.11
3	L5	4442	PSU	C5-C6-N1	-2.06	119.01	122.11
3	L5	1792	PSU	C5-C6-N1	-2.06	119.02	122.11
3	L5	4531	PSU	O2-C2-N3	-2.06	117.94	121.82
1	S2	1238	PSU	C5-C6-N1	-2.05	119.03	122.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	S2	119	PSU	C5-C6-N1	-2.05	119.03	122.11
1	S2	651	PSU	C5-C6-N1	-2.05	119.04	122.11
1	S2	105	PSU	C5-C6-N1	-2.04	119.05	122.11
1	S2	218	PSU	O4'-C1'-C2'	2.03	108.01	105.14
3	L5	4636	PSU	O4'-C1'-C2'	2.03	108.01	105.14
3	L5	1871	A2M	C2-N1-C6	2.03	122.23	118.75
3	L5	4456	OMC	O2-C2-N3	-2.03	119.03	122.33
1	S2	1056	PSU	C5-C6-N1	-2.03	119.06	122.11
3	L5	1322	1MA	C8-N7-C5	2.03	106.85	102.99
3	L5	4569	PSU	C5-C6-N1	-2.03	119.07	122.11
1	S2	1643	PSU	O4'-C1'-C2'	2.03	108.00	105.14
38	LA	216	V5N	CG-CD2-NE2	-2.02	105.15	108.67
20	SX	62	HY3	O-C-CA	-2.02	119.19	124.83
1	S2	668	A2M	C2-N1-C6	2.02	122.21	118.75
3	L5	3867	A2M	C2-N1-C6	2.02	122.21	118.75
2	L8	55	PSU	C5-C6-N1	-2.02	119.08	122.11
3	L5	4521	PSU	C5-C6-N1	-2.02	119.08	122.11
3	L5	3884	PSU	C6-C5-C4	-2.02	116.79	118.20
1	S2	1136	PSU	C5-C6-N1	-2.02	119.08	122.11
3	L5	3792	OMG	O6-C6-C5	-2.01	120.45	124.37
3	L5	4353	PSU	C5-C6-N1	-2.01	119.10	122.11
3	L5	2843	PSU	O2-C2-N3	-2.00	118.04	121.82

There are no chirality outliers.

All (119) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	L8	14	OMU	C1'-C2'-O2'-CM2
6	SA	2	SAC	OAC-C1A-N-CA
6	SA	2	SAC	CB-CA-N-C1A
6	SA	2	SAC	O-C-CA-CB
29	SV	1	AME	OT-CT1-N-CA
63	Lr	2	SAC	C2A-C1A-N-CA
1	S2	27	A2M	C1'-C2'-O2'-CM'
1	S2	116	OMU	C1'-C2'-O2'-CM2
1	S2	159	A2M	C1'-C2'-O2'-CM'
1	S2	462	OMC	C1'-C2'-O2'-CM2
1	S2	468	A2M	C1'-C2'-O2'-CM'
1	S2	576	A2M	C3'-C4'-C5'-O5'
1	S2	590	A2M	O4'-C4'-C5'-O5'
1	S2	601	OMG	C1'-C2'-O2'-CM2
1	S2	644	OMG	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
1	S2	644	OMG	C1'-C2'-O2'-CM2
1	S2	668	A2M	O4'-C4'-C5'-O5'
1	S2	867	OMG	C1'-C2'-O2'-CM2
1	S2	918	PSU	C2'-C1'-C5-C4
1	S2	1248	B8N	C31-C32-C33-N34
1	S2	1326	UY1	C2'-C1'-C5-C4
1	S2	1328	OMG	C1'-C2'-O2'-CM2
1	S2	1337	4AC	N3-C4-N4-C7
1	S2	1337	4AC	C5-C4-N4-C7
1	S2	1383	A2M	C1'-C2'-O2'-CM'
1	S2	1490	OMG	O4'-C4'-C5'-O5'
1	S2	1678	A2M	C1'-C2'-O2'-CM'
1	S2	1851	MA6	O4'-C4'-C5'-O5'
3	L5	398	A2M	C1'-C2'-O2'-CM'
3	L5	2415	OMU	C1'-C2'-O2'-CM2
3	L5	2815	A2M	O4'-C4'-C5'-O5'
3	L5	3723	A2M	C1'-C2'-O2'-CM'
3	L5	3724	A2M	C1'-C2'-O2'-CM'
3	L5	4196	OMG	C1'-C2'-O2'-CM2
3	L5	4420	PSU	C2'-C1'-C5-C4
3	L5	4420	PSU	C3'-C4'-C5'-O5'
3	L5	4420	PSU	O4'-C4'-C5'-O5'
3	L5	4571	A2M	C1'-C2'-O2'-CM'
3	L5	4590	A2M	C4'-C5'-O5'-P
3	L5	4636	PSU	C3'-C4'-C5'-O5'
3	L5	4637	OMG	C1'-C2'-O2'-CM2
20	SX	62	HY3	O-C-CA-C3
38	LA	216	V5N	O-C-CA-CB
3	L5	3701	OMC	C2'-C1'-N1-C6
1	S2	668	A2M	C3'-C4'-C5'-O5'
1	S2	1442	OMU	C3'-C4'-C5'-O5'
1	S2	1442	OMU	O4'-C4'-C5'-O5'
1	S2	1851	MA6	C3'-C4'-C5'-O5'
3	L5	2815	A2M	C3'-C4'-C5'-O5'
3	L5	3785	A2M	O4'-C4'-C5'-O5'
3	L5	3785	A2M	C3'-C4'-C5'-O5'
81	Pt	21	H2U	O4'-C4'-C5'-O5'
6	SA	2	SAC	C2A-C1A-N-CA
63	Lr	2	SAC	OAC-C1A-N-CA
1	S2	576	A2M	O4'-C4'-C5'-O5'
1	S2	590	A2M	C3'-C4'-C5'-O5'
1	S2	644	OMG	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
1	S2	1243	PSU	O4'-C4'-C5'-O5'
3	L5	4636	PSU	O4'-C4'-C5'-O5'
3	L5	1625	OMG	C3'-C2'-O2'-CM2
1	S2	428	OMU	C2'-C1'-N1-C6
3	L5	3701	OMC	C2'-C1'-N1-C2
1	S2	822	PSU	C3'-C4'-C5'-O5'
1	S2	1447	OMG	C3'-C4'-C5'-O5'
1	S2	1243	PSU	C3'-C4'-C5'-O5'
3	L5	2422	OMC	O4'-C4'-C5'-O5'
3	L5	4447	5MC	C2'-C1'-N1-C6
78	Lo	53	MLZ	CG-CD-CE-NZ
1	S2	428	OMU	C2'-C1'-N1-C2
3	L5	2363	A2M	C3'-C2'-O2'-CM'
1	S2	822	PSU	O4'-C4'-C5'-O5'
3	L5	2422	OMC	C3'-C4'-C5'-O5'
1	S2	1804	OMU	C1'-C2'-O2'-CM2
3	L5	3718	A2M	C1'-C2'-O2'-CM'
1	S2	428	OMU	O4'-C1'-N1-C6
3	L5	4447	5MC	O4'-C1'-N1-C6
3	L5	3701	OMC	O4'-C1'-N1-C6
3	L5	3818	UY1	C4'-C5'-O5'-P
1	S2	1447	OMG	O4'-C4'-C5'-O5'
3	L5	1326	A2M	C4'-C5'-O5'-P
3	L5	1534	A2M	C4'-C5'-O5'-P
3	L5	3701	OMC	O4'-C1'-N1-C2
3	L5	4447	5MC	O4'-C1'-N1-C2
3	L5	4500	PSU	C4'-C5'-O5'-P
3	L5	3851	PSU	C3'-C4'-C5'-O5'
1	S2	428	OMU	O4'-C1'-N1-C2
1	S2	1490	OMG	C4'-C5'-O5'-P
3	L5	2815	A2M	C4'-C5'-O5'-P
39	LB	245	HIC	CA-CB-CG-ND1
3	L5	1524	A2M	C3'-C2'-O2'-CM'
3	L5	4447	5MC	C2'-C1'-N1-C2
1	S2	1851	MA6	C4'-C5'-O5'-P
3	L5	3844	PSU	C4'-C5'-O5'-P
1	S2	918	PSU	O4'-C1'-C5-C4
1	S2	1326	UY1	O4'-C1'-C5-C4
3	L5	1677	PSU	O4'-C1'-C5-C4
3	L5	4494	OMG	C3'-C2'-O2'-CM2
1	S2	644	OMG	C4'-C5'-O5'-P
1	S2	1288	OMU	C4'-C5'-O5'-P

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Mol	Chain	Res	Type	Atoms
3	L5	3944	OMG	C3'-C4'-C5'-O5'
1	S2	1081	PSU	C4'-C5'-O5'-P
81	Pt	21	H2U	C4'-C5'-O5'-P
3	L5	3867	A2M	C3'-C4'-C5'-O5'
1	S2	484	A2M	C1'-C2'-O2'-CM'
1	S2	512	A2M	C1'-C2'-O2'-CM'
1	S2	1490	OMG	C1'-C2'-O2'-CM2
3	L5	2351	OMC	O4'-C4'-C5'-O5'
1	S2	918	PSU	O4'-C1'-C5-C6
3	L5	1677	PSU	O4'-C1'-C5-C6
3	L5	3818	UY1	O4'-C1'-C5-C6
3	L5	4531	PSU	O4'-C1'-C5-C6
1	S2	1288	OMU	C2'-C1'-N1-C2
3	L5	1534	A2M	O4'-C4'-C5'-O5'
3	L5	3729	PSU	O4'-C4'-C5'-O5'
3	L5	3760	A2M	O4'-C4'-C5'-O5'
6	SA	2	SAC	C-CA-N-C1A
3	L5	2351	OMC	C2'-C1'-N1-C2
65	Lb	5	MLZ	N-CA-CB-CG
1	S2	1288	OMU	C2'-C1'-N1-C6

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 860 ligands modelled in this entry, 831 are monoatomic - leaving 29 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	$\#\|Z\|>2$
83	PUT	L5	5122	-	5,5,5	0.12	0	4,4,4	0.16	0
83	PUT	L5	5116	-	5,5,5	0.09	0	4,4,4	0.17	0
87	3H3	L5	5102	-	33,34,34	3.52	11 (33%)	34,45,45	3.93	19 (55%)
82	SPD	L5	5113	-	9,9,9	0.15	0	8,8,8	0.21	0
82	SPD	L5	5106	-	9,9,9	0.20	0	8,8,8	0.24	0
83	PUT	L5	5118	-	5,5,5	0.09	0	4,4,4	0.18	0
82	SPD	S2	1902	-	9,9,9	0.33	0	8,8,8	0.77	0
83	PUT	L5	5123	-	5,5,5	0.14	0	4,4,4	0.15	0
88	TRS	L5	5125	-	7,7,7	0.08	0	9,9,9	0.24	0
82	SPD	L5	5109	-	9,9,9	0.15	0	8,8,8	0.24	0
90	MET	Pt	78	81	6,7,8	0.68	0	2,7,9	2.86	1 (50%)
83	PUT	L5	5117	-	5,5,5	0.10	0	4,4,4	0.15	0
82	SPD	L5	5107	-	9,9,9	0.31	0	8,8,8	0.92	0
82	SPD	L5	5110	-	9,9,9	0.32	0	8,8,8	0.97	0
82	SPD	S2	1901	-	9,9,9	0.32	0	8,8,8	0.75	0
82	SPD	L5	5111	-	9,9,9	0.14	0	8,8,8	0.21	0
82	SPD	L5	5114	-	9,9,9	0.16	0	8,8,8	0.29	0
82	SPD	L5	5115	-	9,9,9	0.18	0	8,8,8	0.27	0
82	SPD	L5	5112	-	9,9,9	0.18	0	8,8,8	0.28	0
82	SPD	L5	5104	-	9,9,9	0.15	0	8,8,8	0.30	0
83	PUT	L5	5121	-	5,5,5	0.16	0	4,4,4	0.21	0
83	PUT	L5	5119	-	5,5,5	0.10	0	4,4,4	0.16	0
82	SPD	L5	5103	-	9,9,9	0.31	0	8,8,8	0.83	0
82	SPD	L5	5108	-	9,9,9	0.32	0	8,8,8	1.00	0
86	ANM	L5	5101	84	20,20,20	1.15	1 (5%)	22,27,27	1.35	2 (9%)
88	TRS	L5	5124	-	7,7,7	0.38	0	9,9,9	0.56	0
82	SPD	L5	5105	-	9,9,9	0.17	0	8,8,8	0.27	0
83	PUT	S2	1903	-	5,5,5	0.11	0	4,4,4	0.15	0
83	PUT	L5	5120	-	5,5,5	0.11	0	4,4,4	0.16	0

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
83	PUT	L5	5122	-	-	0/3/3/3	-
83	PUT	L5	5116	-	-	0/3/3/3	-
87	3H3	L5	5102	-	-	14/39/51/51	0/1/2/2
82	SPD	L5	5113	-	-	6/7/7/7	-
82	SPD	L5	5106	-	-	3/7/7/7	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
83	PUT	L5	5118	-	-	0/3/3/3	-
82	SPD	S2	1902	-	-	5/7/7/7	-
83	PUT	L5	5123	-	-	0/3/3/3	-
88	TRS	L5	5125	-	-	6/9/9/9	-
82	SPD	L5	5109	-	-	4/7/7/7	-
90	MET	Pt	78	81	-	4/5/6/8	-
83	PUT	L5	5117	-	-	1/3/3/3	-
82	SPD	L5	5107	-	-	3/7/7/7	-
82	SPD	L5	5110	-	-	3/7/7/7	-
82	SPD	S2	1901	-	-	2/7/7/7	-
82	SPD	L5	5111	-	-	3/7/7/7	-
82	SPD	L5	5114	-	-	5/7/7/7	-
82	SPD	L5	5115	-	-	1/7/7/7	-
82	SPD	L5	5112	-	-	5/7/7/7	-
82	SPD	L5	5104	-	-	4/7/7/7	-
83	PUT	L5	5121	-	-	1/3/3/3	-
83	PUT	L5	5119	-	-	1/3/3/3	-
82	SPD	L5	5103	-	-	0/7/7/7	-
82	SPD	L5	5108	-	-	4/7/7/7	-
86	ANM	L5	5101	84	-	0/10/23/23	0/2/2/2
88	TRS	L5	5124	-	-	0/9/9/9	-
82	SPD	L5	5105	-	-	5/7/7/7	-
83	PUT	S2	1903	-	-	0/3/3/3	-
83	PUT	L5	5120	-	-	1/3/3/3	-

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	L5	5102	3H3	C13-C12	9.62	1.53	1.33
87	L5	5102	3H3	O3-C22	7.90	1.39	1.23
87	L5	5102	3H3	O4-C23	7.55	1.38	1.23
87	L5	5102	3H3	C23-N	7.33	1.50	1.37
87	L5	5102	3H3	C22-N	6.46	1.48	1.37
87	L5	5102	3H3	C3-C2	5.26	1.54	1.33
86	L5	5101	ANM	O2-C5	4.40	1.45	1.35
87	L5	5102	3H3	C19-C20	3.72	1.58	1.53
87	L5	5102	3H3	C4-C3	3.19	1.53	1.44
87	L5	5102	3H3	O1-C10	2.93	1.40	1.34
87	L5	5102	3H3	O1-C11	-2.55	1.40	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	L5	5102	3H3	C24-C20	-2.08	1.50	1.53

All (22) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
87	L5	5102	3H3	C22-N-C23	-12.58	110.52	125.78
87	L5	5102	3H3	O3-C22-N	-7.67	108.12	120.28
87	L5	5102	3H3	O4-C23-N	-7.50	108.39	120.28
87	L5	5102	3H3	O4-C23-C24	-6.93	109.12	122.62
87	L5	5102	3H3	O3-C22-C21	-6.73	109.51	122.62
87	L5	5102	3H3	C8-C9-C10	-4.93	110.34	122.92
87	L5	5102	3H3	C25-C12-C13	-4.50	111.62	123.45
87	L5	5102	3H3	C1-C2-C3	-4.36	116.98	126.16
87	L5	5102	3H3	O1-C11-C1	4.13	111.70	106.31
90	Pt	78	MET	CE-SD-CG	4.05	114.32	100.40
86	L5	5101	ANM	O2-C5-C6	3.90	118.27	111.09
87	L5	5102	3H3	C11-C12-C13	-3.02	111.73	120.93
87	L5	5102	3H3	C25-C12-C11	-2.94	110.60	115.68
87	L5	5102	3H3	C24-C23-N	-2.90	112.40	115.95
87	L5	5102	3H3	C21-C22-N	-2.84	112.47	115.95
87	L5	5102	3H3	C6-C7-C8	-2.78	105.64	112.92
87	L5	5102	3H3	C1-C11-C12	-2.29	109.32	113.89
86	L5	5101	ANM	O2-C5-O3	-2.23	118.52	122.96
87	L5	5102	3H3	C17-C16-C14	2.22	120.51	117.72
87	L5	5102	3H3	C4-C3-C2	-2.19	108.77	124.42
87	L5	5102	3H3	C19-C18-C17	-2.10	109.01	113.19
87	L5	5102	3H3	O1-C10-C9	2.04	116.02	111.38

There are no chirality outliers.

All (81) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
82	L5	5108	SPD	C7-C8-C9-N10
82	L5	5114	SPD	C4-C5-N6-C7
87	L5	5102	3H3	C2-C1-C11-O1
87	L5	5102	3H3	C2-C1-C11-C12
87	L5	5102	3H3	C-C1-C11-O1
87	L5	5102	3H3	C-C1-C11-C12
87	L5	5102	3H3	C25-C12-C13-C14
87	L5	5102	3H3	C1-C11-C12-C25
87	L5	5102	3H3	O1-C11-C12-C25
88	L5	5125	TRS	C2-C-C1-O1

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Mol	Chain	Res	Type	Atoms
88	L5	5125	TRS	C3-C-C1-O1
88	L5	5125	TRS	N-C-C1-O1
88	L5	5125	TRS	C1-C-C3-O3
88	L5	5125	TRS	C2-C-C3-O3
88	L5	5125	TRS	N-C-C3-O3
90	Pt	78	MET	N-CA-CB-CG
82	L5	5114	SPD	C3-C4-C5-N6
90	Pt	78	MET	CA-CB-CG-SD
82	S2	1902	SPD	C3-C4-C5-N6
82	L5	5113	SPD	C3-C4-C5-N6
82	L5	5104	SPD	N6-C7-C8-C9
82	L5	5105	SPD	N6-C7-C8-C9
87	L5	5102	3H3	O-C10-O1-C11
82	L5	5104	SPD	C3-C4-C5-N6
82	L5	5108	SPD	C3-C4-C5-N6
87	L5	5102	3H3	C2-C3-C4-C5
82	S2	1902	SPD	C4-C5-N6-C7
82	L5	5114	SPD	N6-C7-C8-C9
87	L5	5102	3H3	C9-C10-O1-C11
82	L5	5109	SPD	C3-C4-C5-N6
82	L5	5109	SPD	C8-C7-N6-C5
82	S2	1902	SPD	N1-C2-C3-C4
82	L5	5112	SPD	C3-C4-C5-N6
82	L5	5104	SPD	C4-C5-N6-C7
82	L5	5106	SPD	C8-C7-N6-C5
90	Pt	78	MET	CB-CG-SD-CE
87	L5	5102	3H3	C-C1-C2-C3
82	S2	1902	SPD	C7-C8-C9-N10
82	L5	5106	SPD	C7-C8-C9-N10
82	L5	5107	SPD	C7-C8-C9-N10
82	L5	5111	SPD	C7-C8-C9-N10
82	L5	5113	SPD	C7-C8-C9-N10
82	L5	5108	SPD	C2-C3-C4-C5
82	L5	5109	SPD	C2-C3-C4-C5
82	L5	5105	SPD	C2-C3-C4-C5
83	L5	5121	PUT	C1-C2-C3-C4
82	L5	5110	SPD	C2-C3-C4-C5
82	L5	5112	SPD	N1-C2-C3-C4
82	S2	1902	SPD	C2-C3-C4-C5
82	L5	5115	SPD	N6-C7-C8-C9
82	L5	5105	SPD	C8-C7-N6-C5
82	L5	5110	SPD	C3-C4-C5-N6

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Mol	Chain	Res	Type	Atoms
82	L5	5107	SPD	C2-C3-C4-C5
82	L5	5112	SPD	C2-C3-C4-C5
82	L5	5113	SPD	C2-C3-C4-C5
82	L5	5111	SPD	C2-C3-C4-C5
82	L5	5105	SPD	C7-C8-C9-N10
82	L5	5109	SPD	C7-C8-C9-N10
82	L5	5112	SPD	C7-C8-C9-N10
82	L5	5114	SPD	C7-C8-C9-N10
82	L5	5113	SPD	C4-C5-N6-C7
82	L5	5114	SPD	C8-C7-N6-C5
82	L5	5108	SPD	N1-C2-C3-C4
90	Pt	78	MET	C-CA-CB-CG
83	L5	5120	PUT	C1-C2-C3-C4
82	L5	5107	SPD	N6-C7-C8-C9
82	L5	5113	SPD	N1-C2-C3-C4
83	L5	5119	PUT	C1-C2-C3-C4
87	L5	5102	3H3	C12-C13-C14-C15
82	L5	5110	SPD	C4-C5-N6-C7
82	L5	5105	SPD	N1-C2-C3-C4
83	L5	5117	PUT	C1-C2-C3-C4
82	S2	1901	SPD	C4-C5-N6-C7
82	L5	5113	SPD	N6-C7-C8-C9
82	L5	5111	SPD	C8-C7-N6-C5
82	L5	5112	SPD	C4-C5-N6-C7
82	S2	1901	SPD	N6-C7-C8-C9
87	L5	5102	3H3	C6-C7-C8-C9
87	L5	5102	3H3	C12-C13-C14-C16
82	L5	5106	SPD	C4-C5-N6-C7
82	L5	5104	SPD	N1-C2-C3-C4

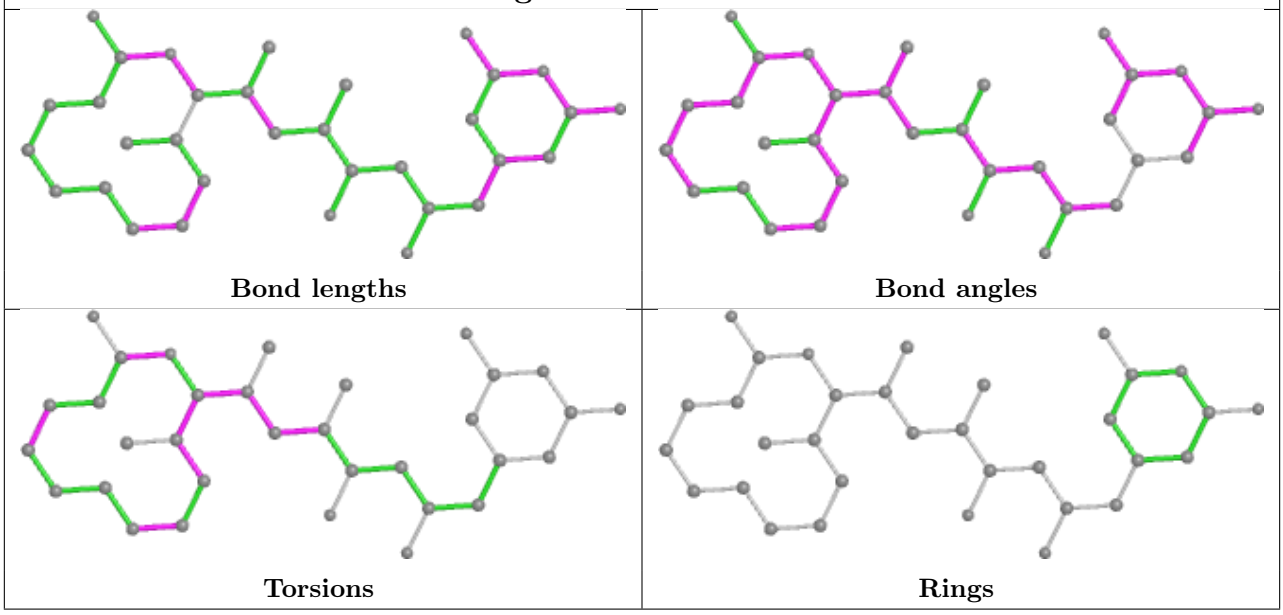
There are no ring outliers.

No monomer is involved in short contacts.

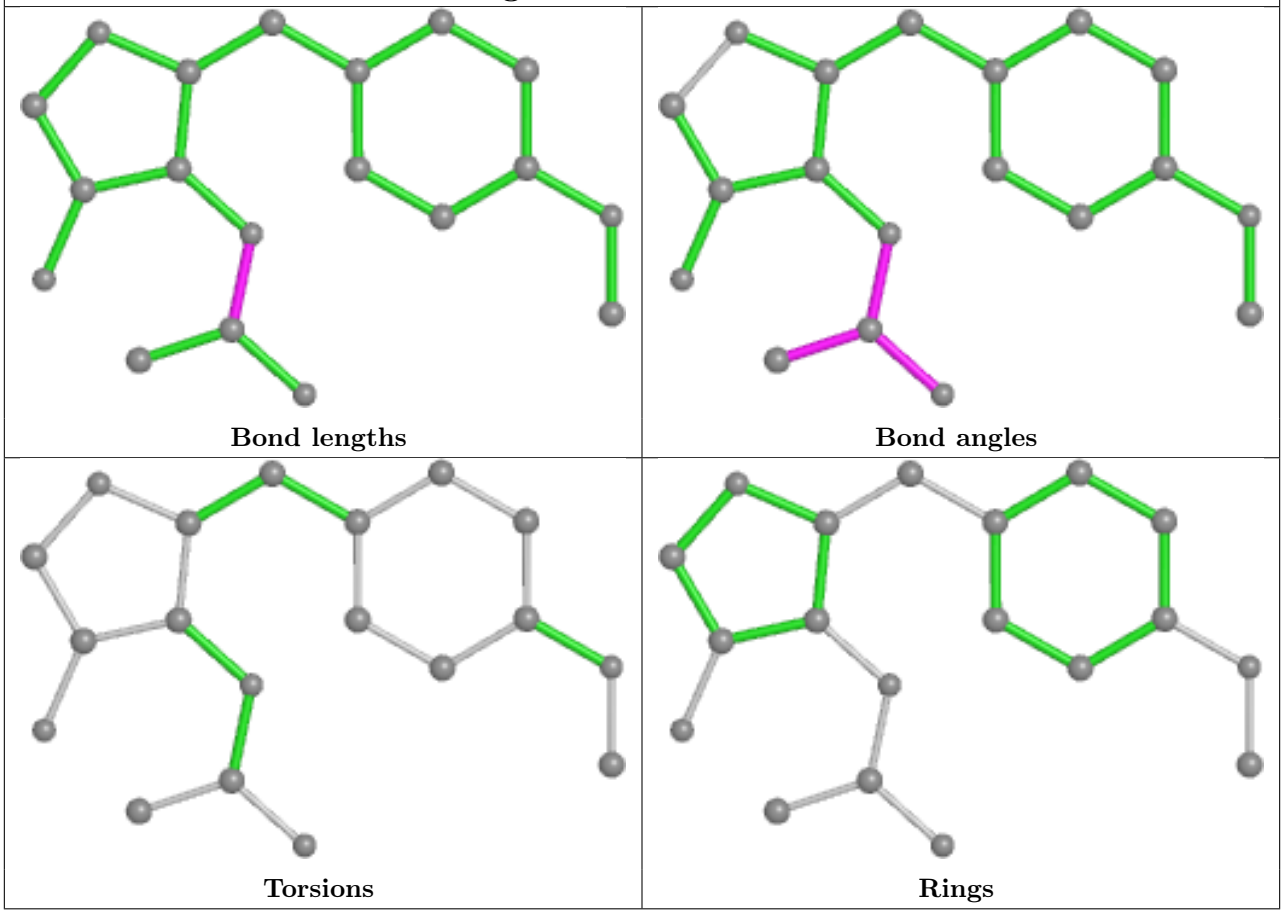
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. 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 3H3 L5 5102



Ligand ANM L5 5101



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.

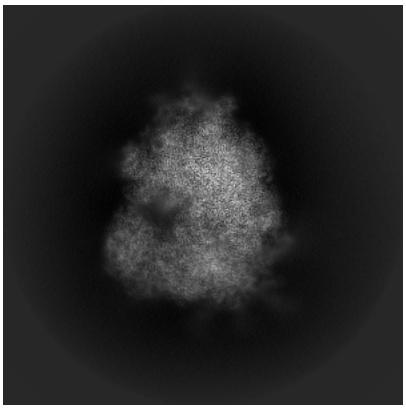
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-40205. These allow visual inspection of the internal detail of the map and identification of artifacts.

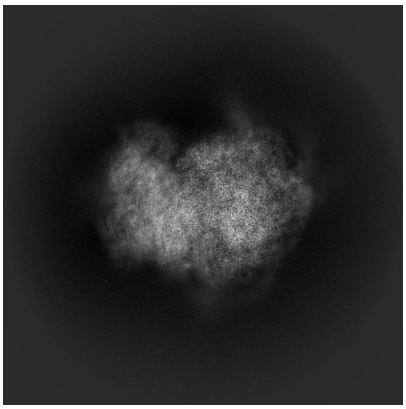
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

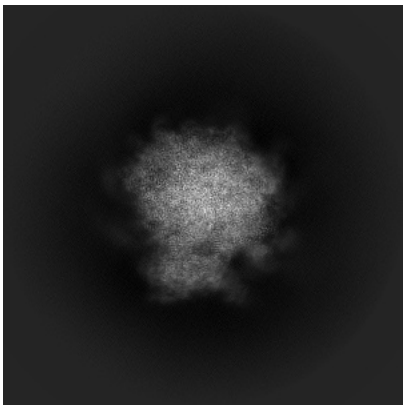
6.1.1 Primary map



X

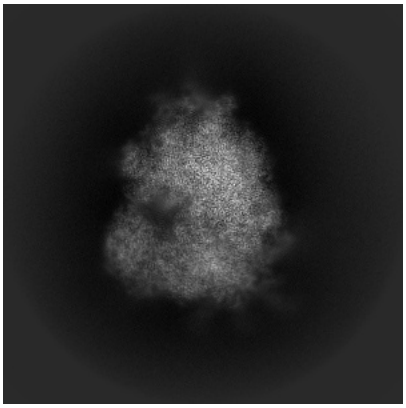


Y

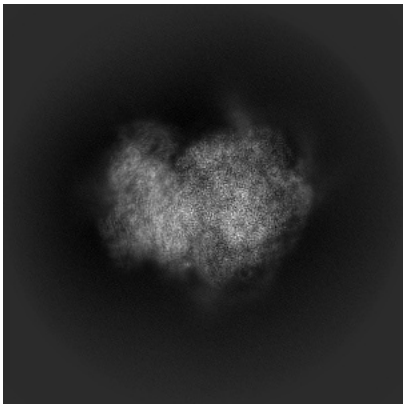


Z

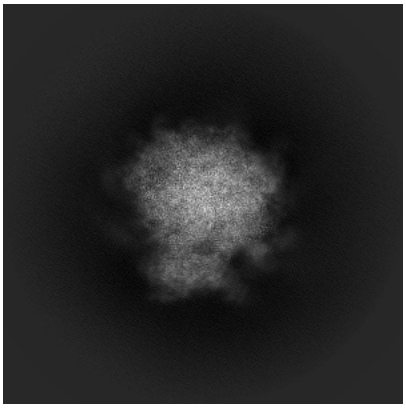
6.1.2 Raw map



X



Y

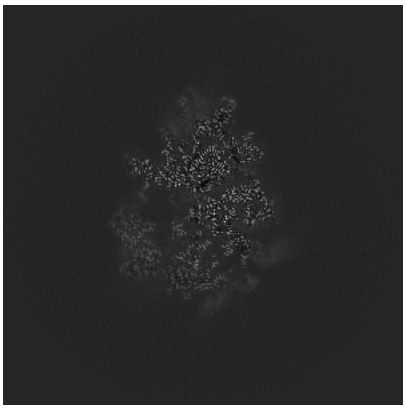


Z

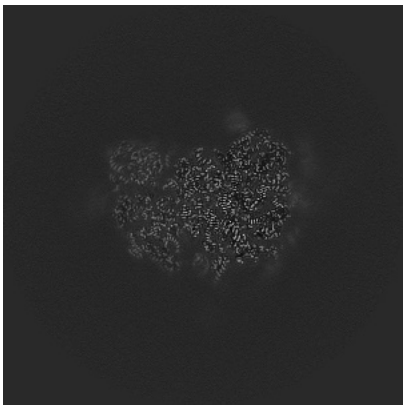
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

6.2.1 Primary map



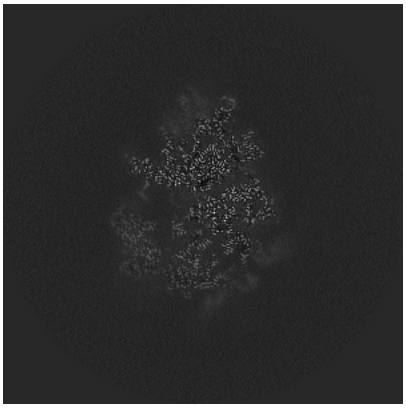
X Index: 320



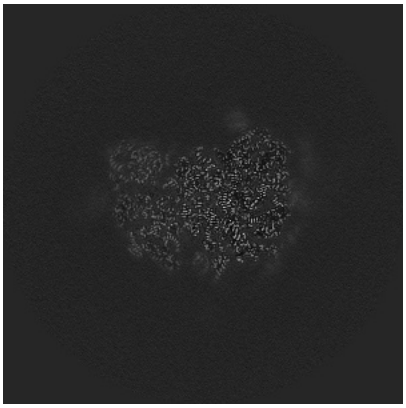
Y Index: 320

Z Index: 320

6.2.2 Raw map



X Index: 320



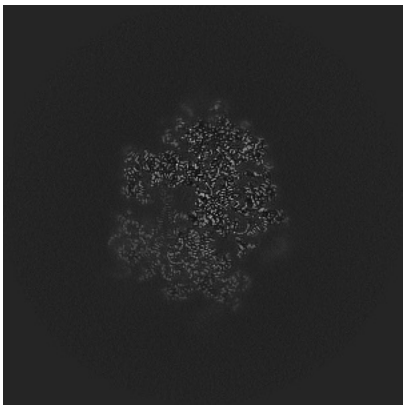
Y Index: 320

Z Index: 320

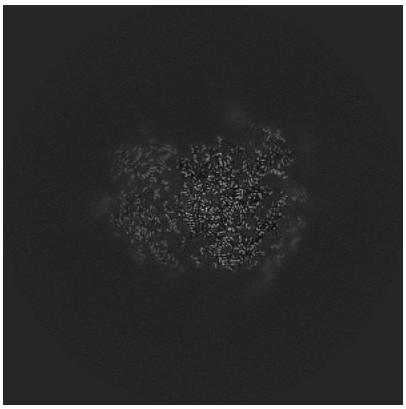
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

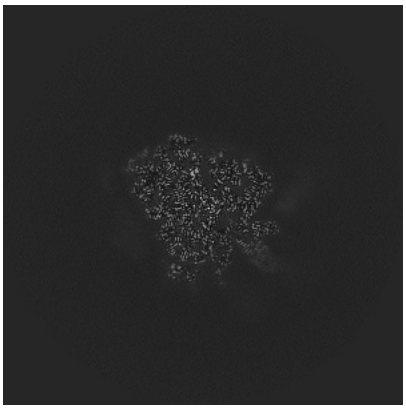
6.3.1 Primary map



X Index: 299

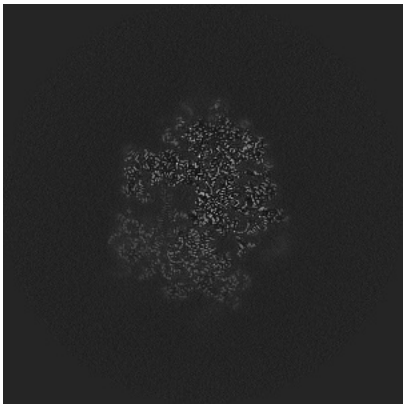


Y Index: 332

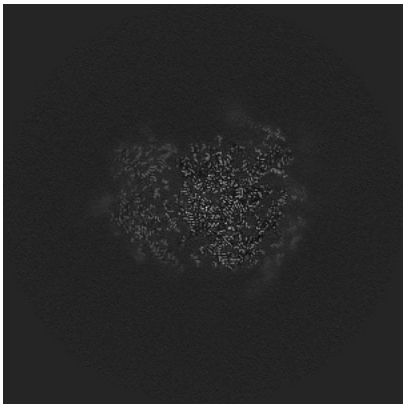


Z Index: 362

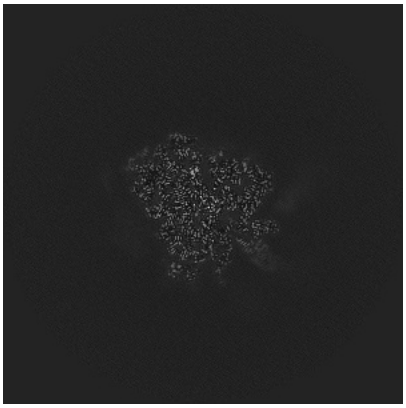
6.3.2 Raw map



X Index: 299



Y Index: 332

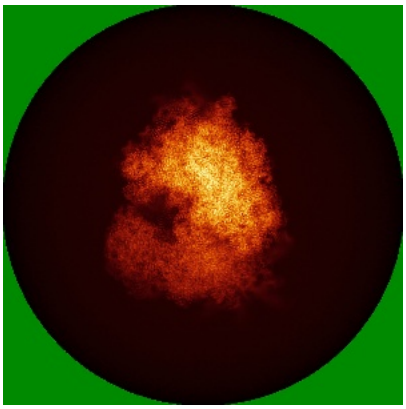


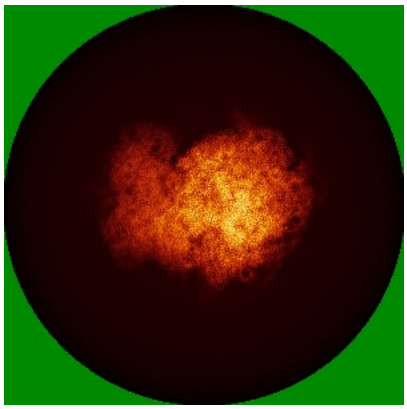
Z Index: 362

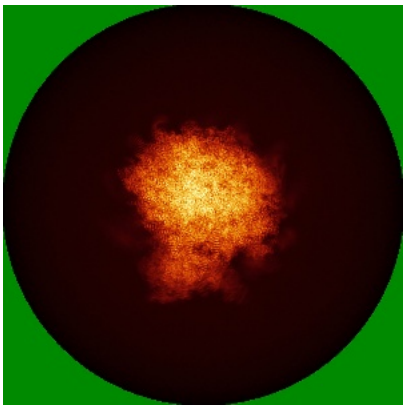
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

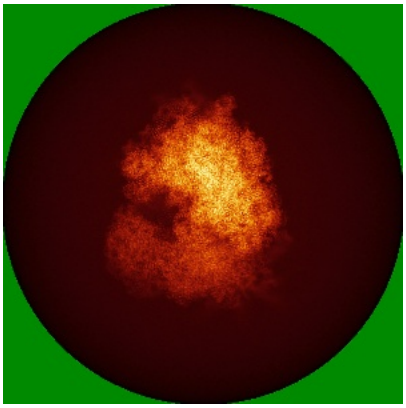
6.4.1 Primary map

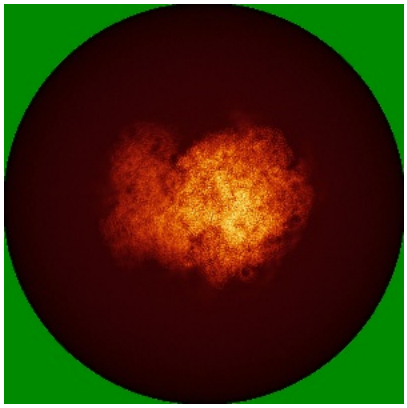

X

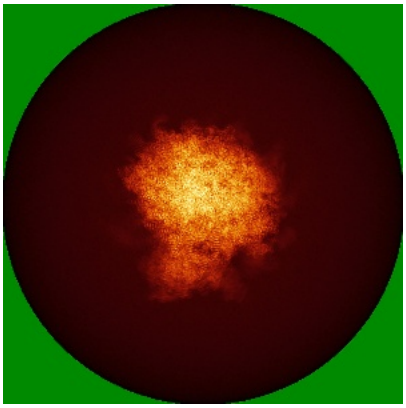

Y


Z

6.4.2 Raw map


X

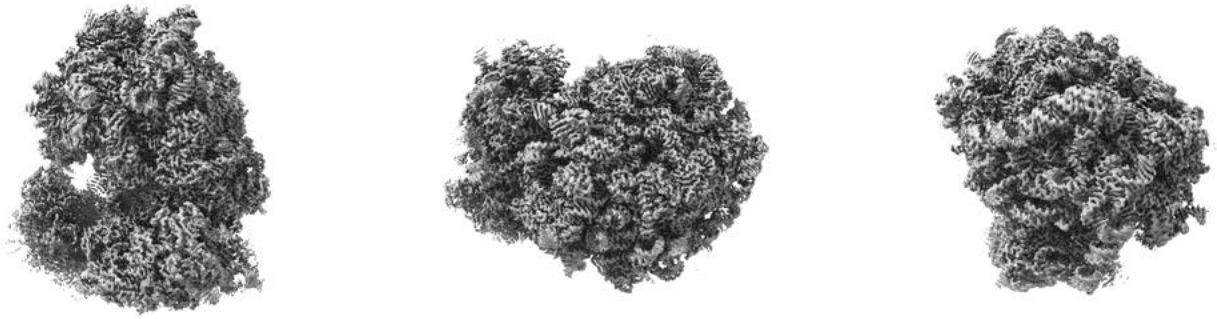

Y


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.007. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map

X Y Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

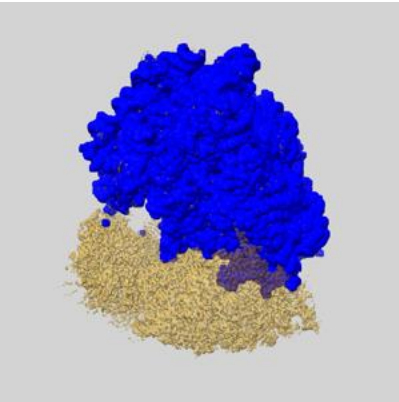
6.6 Mask visualisation

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

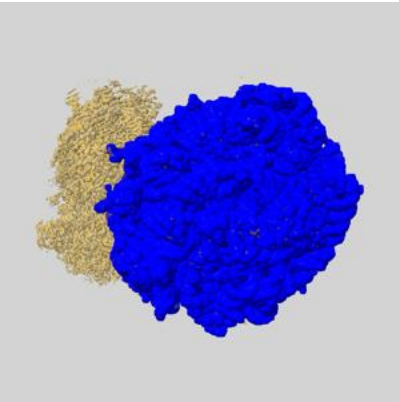
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

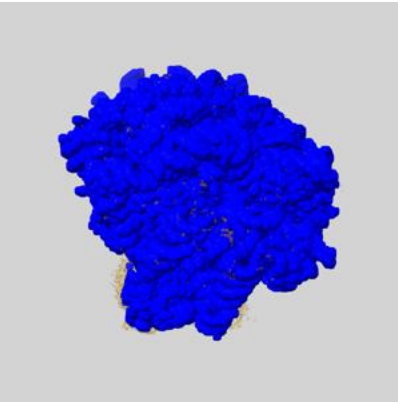
6.6.1 emd_40205_msk_1.map



X



Y

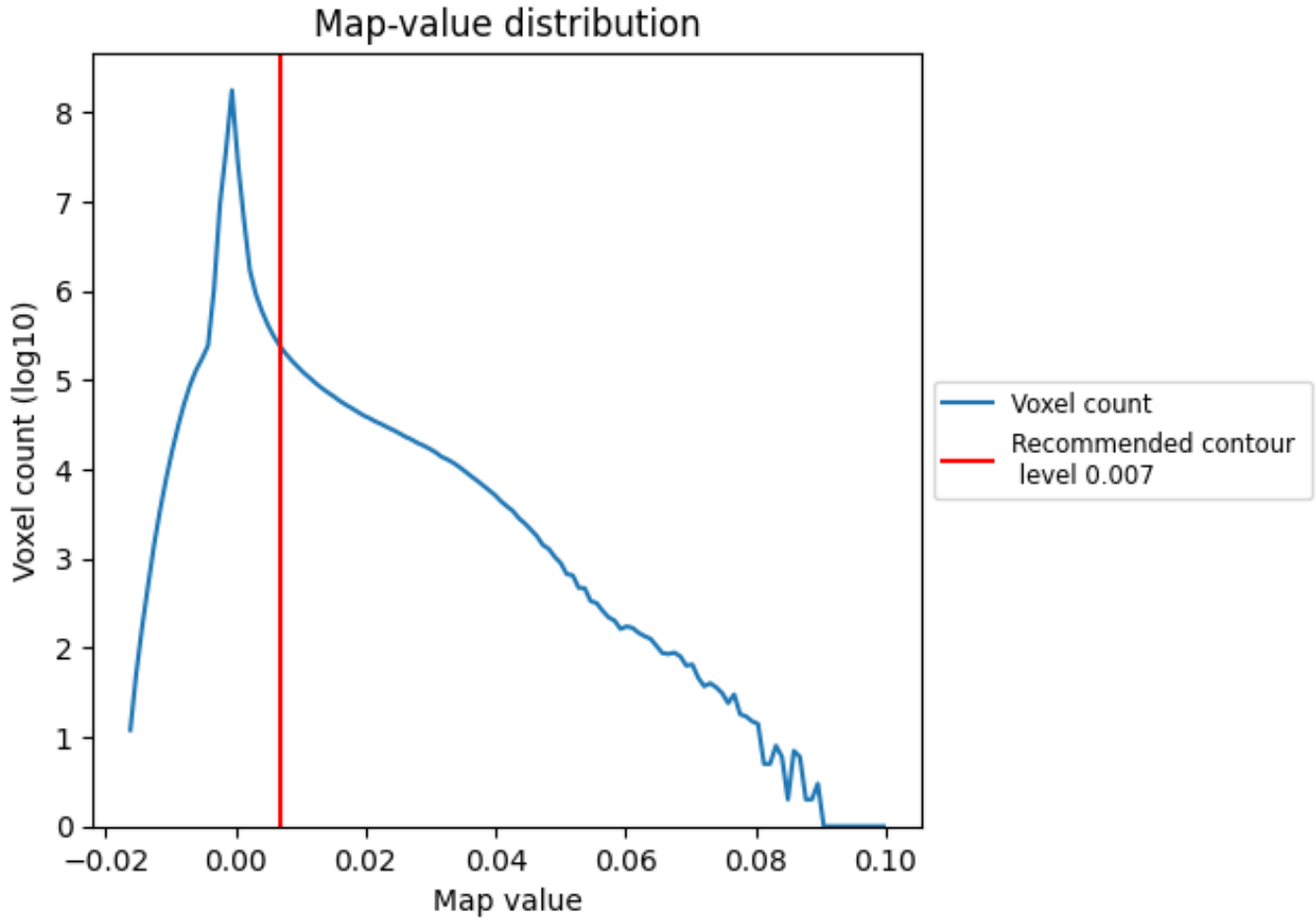


Z

7 Map analysis

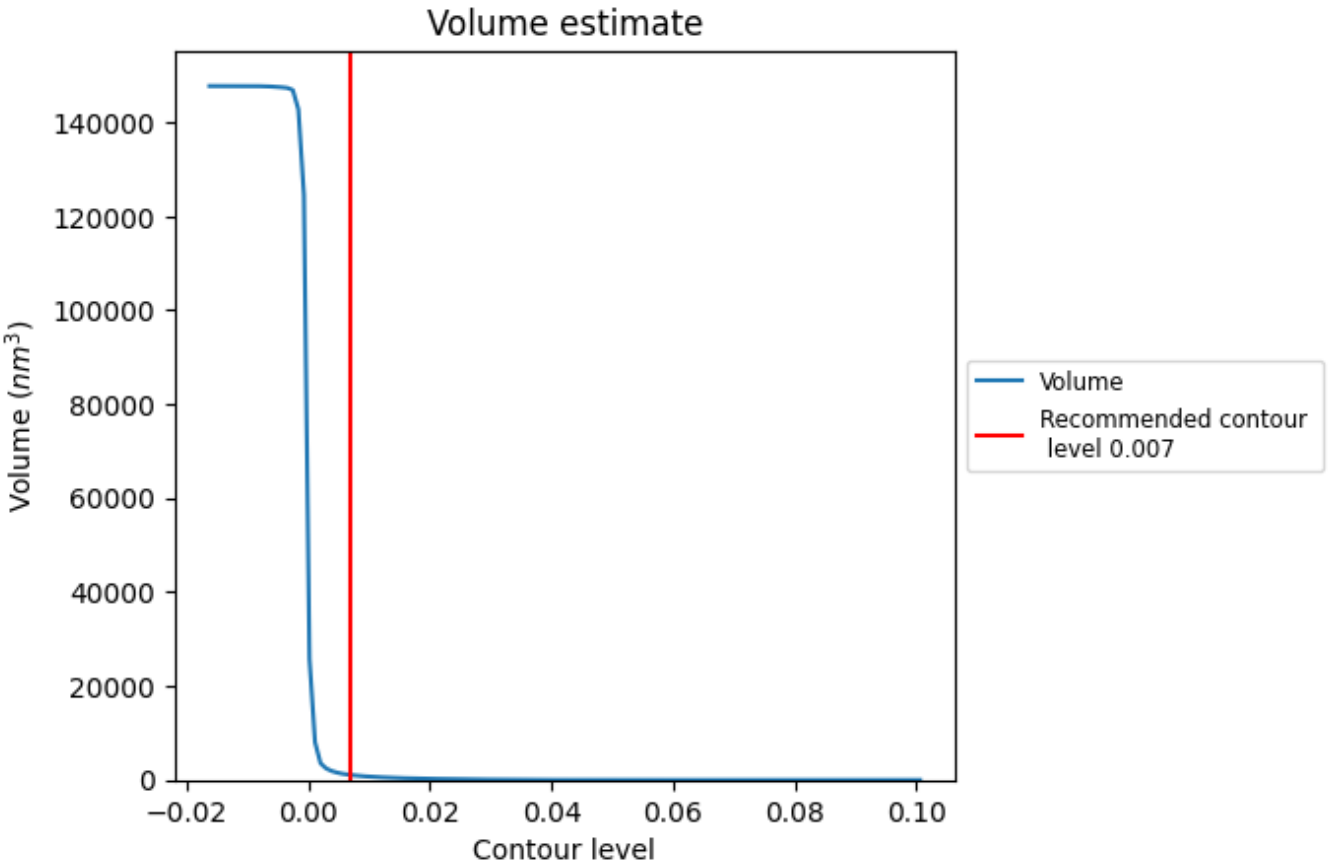
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

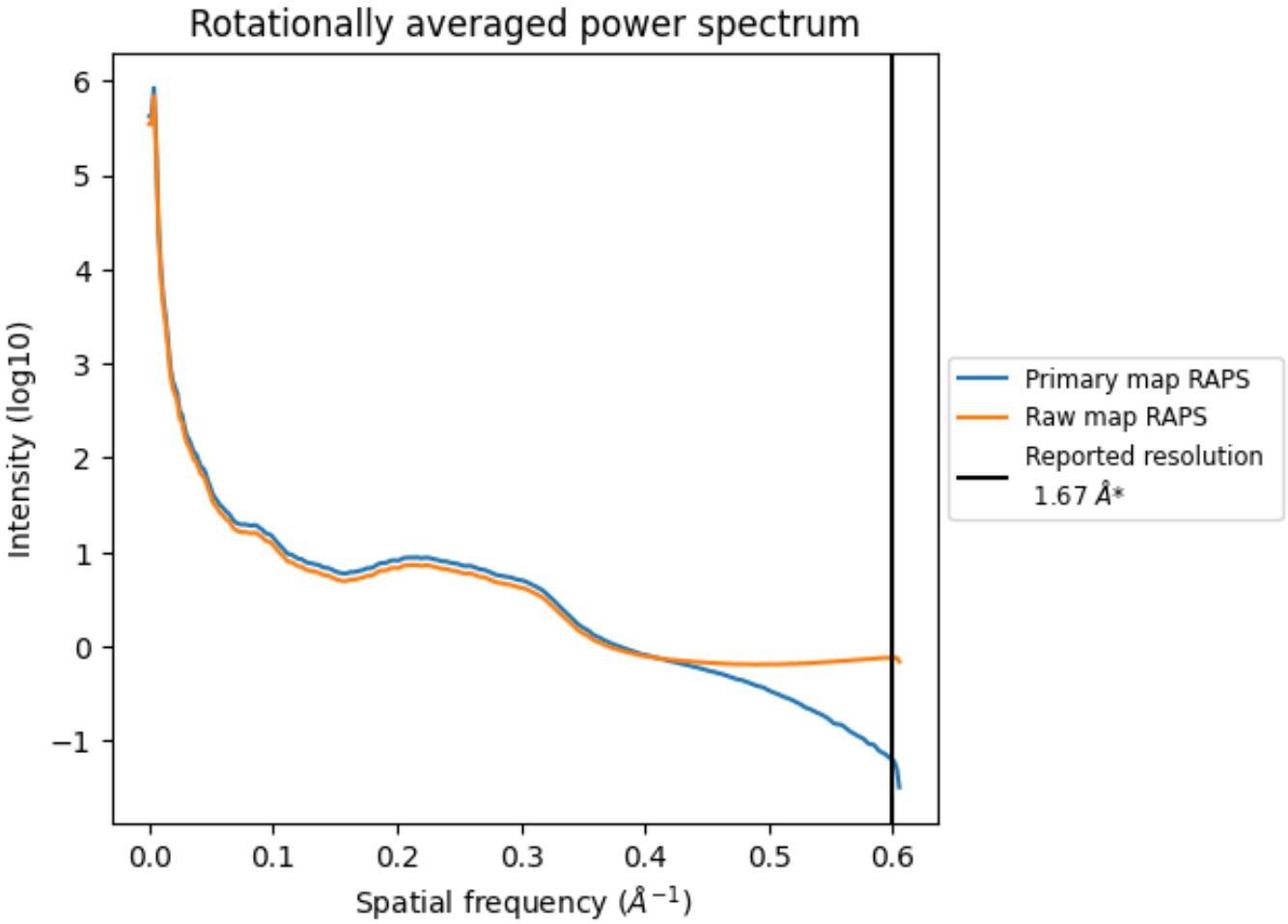
7.2 Volume estimate



The volume at the recommended contour level is 1063 nm^3; this corresponds to an approximate mass of 960 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)

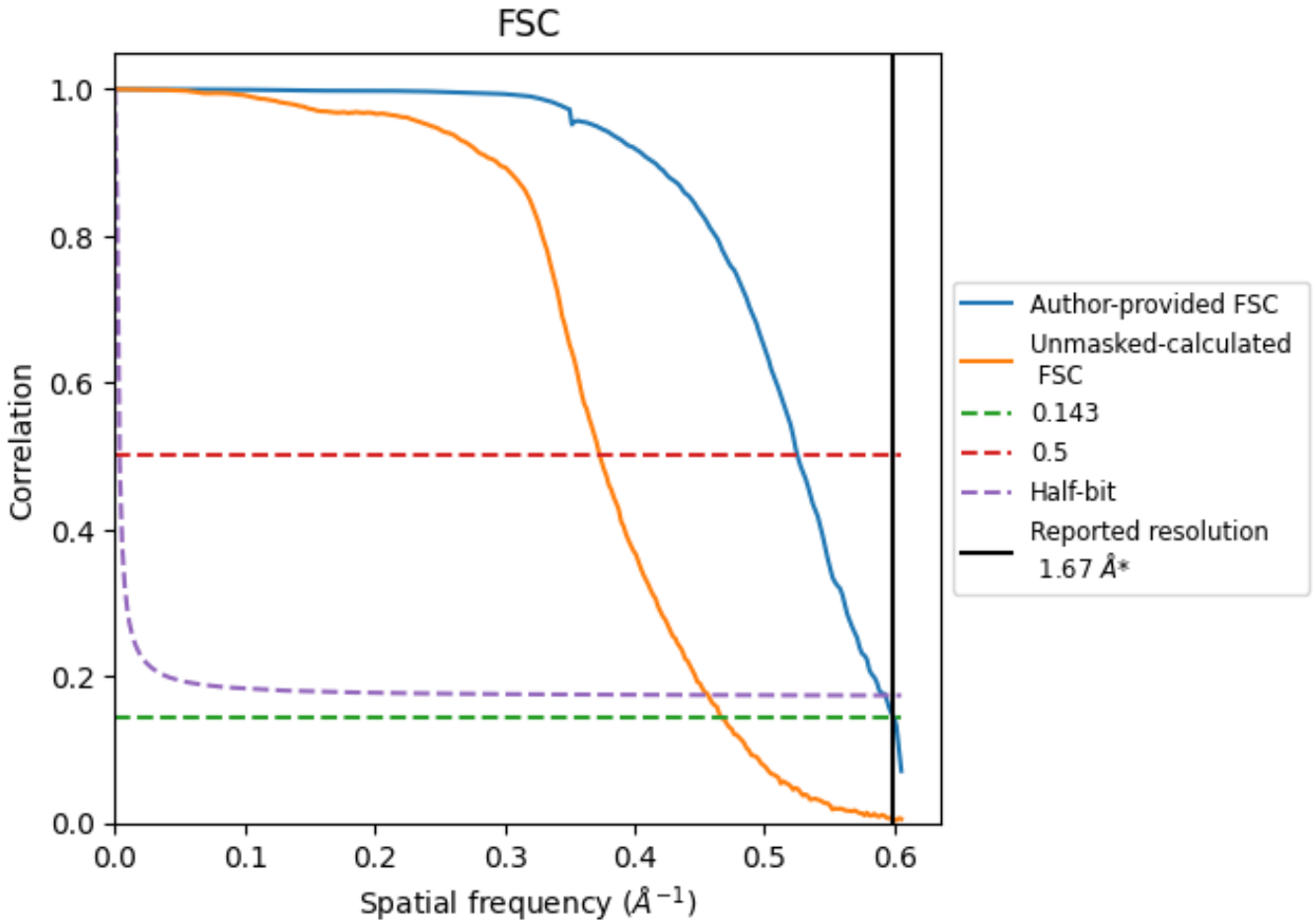


*Reported resolution corresponds to spatial frequency of 0.599 $Å^{-1}$

8 Fourier-Shell correlation

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.599 Å^{-1}

8.2 Resolution estimates (i)

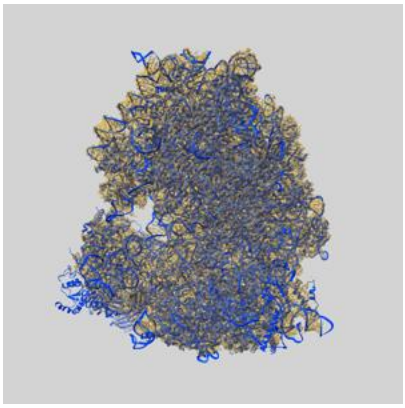
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	1.67	-	-
Author-provided FSC curve	1.67	1.90	1.69
Unmasked-calculated*	2.14	2.68	2.19

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 2.14 differs from the reported value 1.67 by more than 10 %

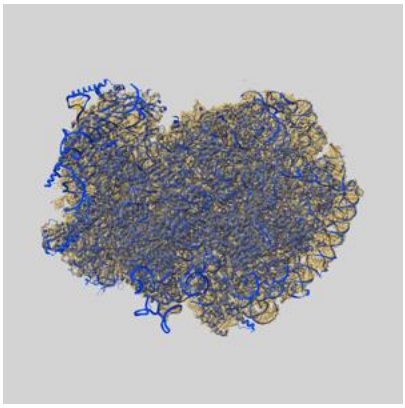
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-40205 and PDB model 8GLP. Per-residue inclusion information can be found in section 3 on page 29.

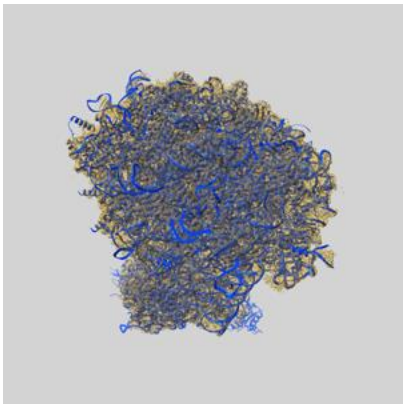
9.1 Map-model overlay



X



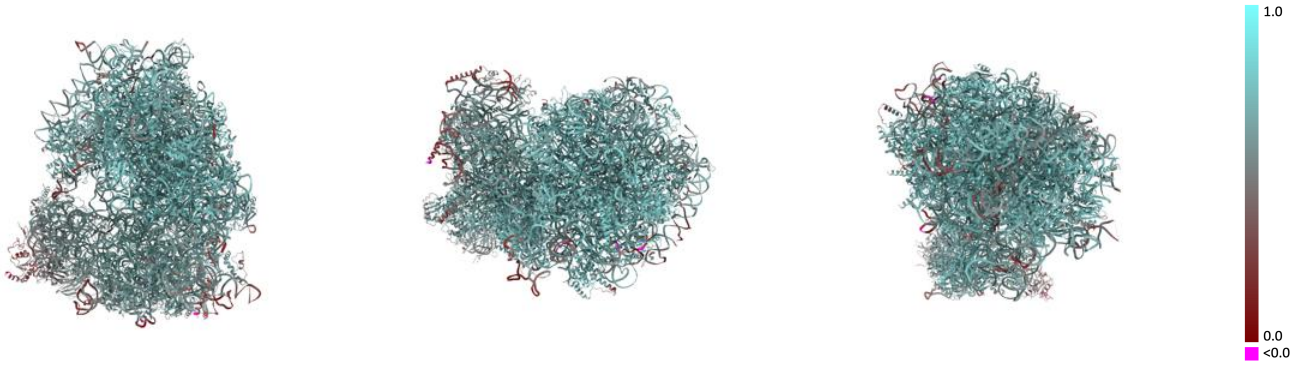
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.007 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

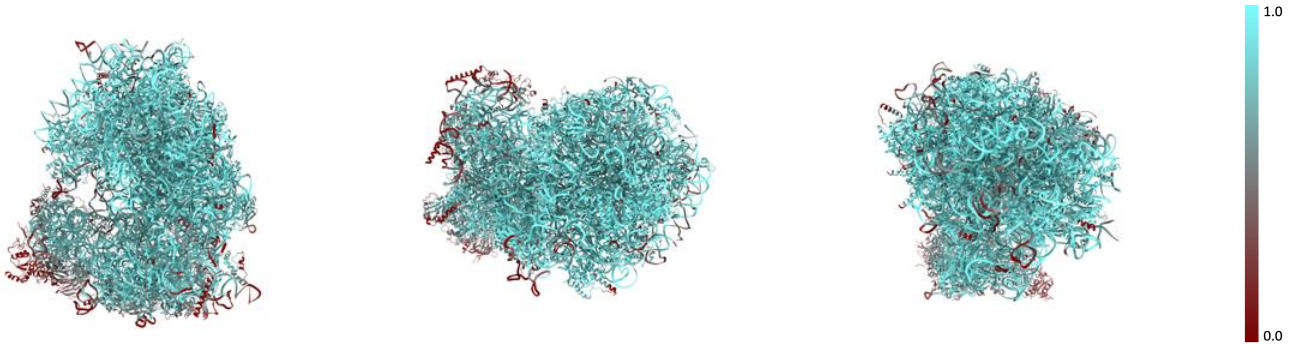
9.2 Q-score mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

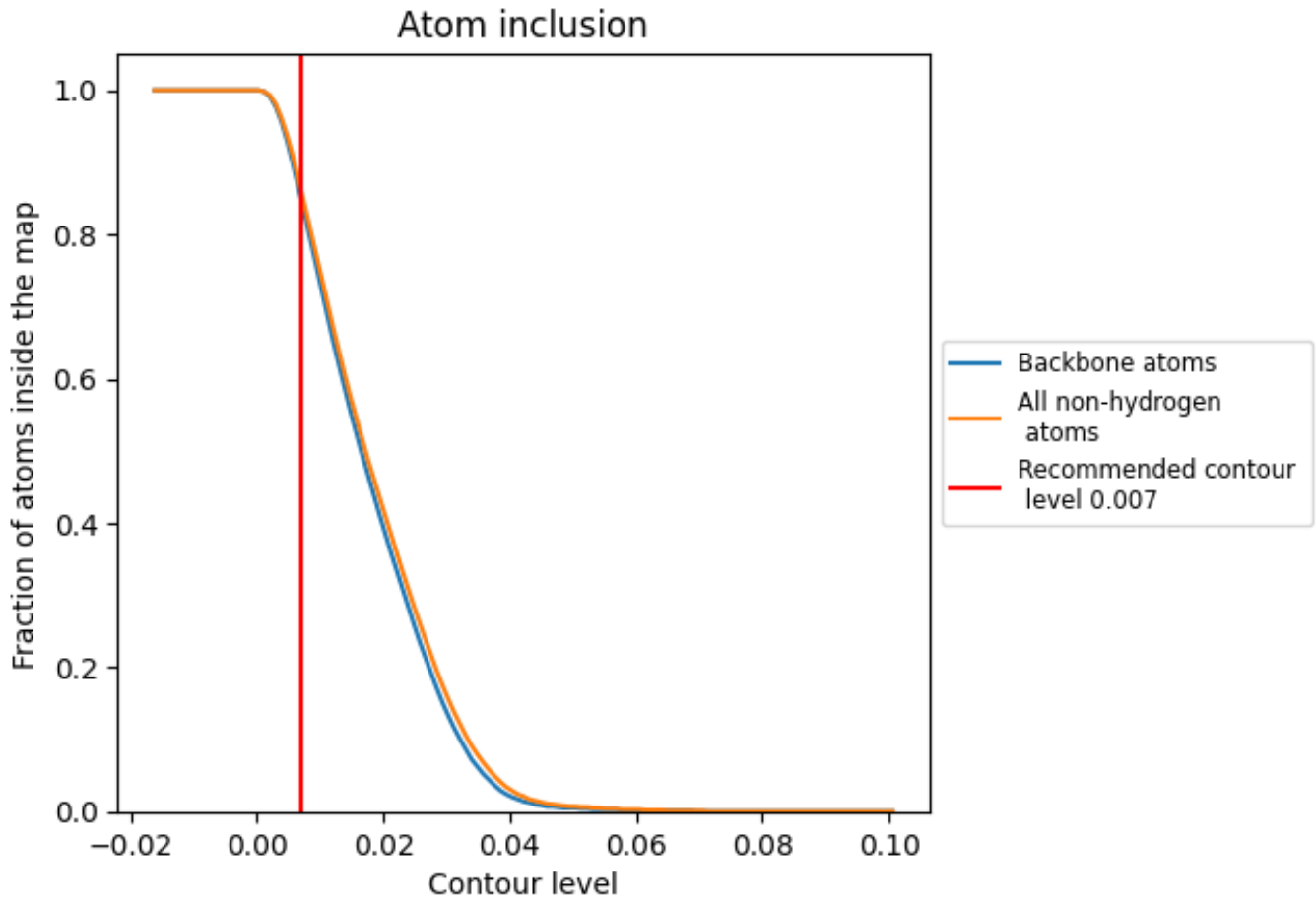
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.007).

9.4 Atom inclusion (i)



At the recommended contour level, 85% of all backbone atoms, 86% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.007) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8610	0.6730
L5	0.9260	0.6950
L7	0.9930	0.7260
L8	0.9600	0.7170
LA	0.9760	0.7710
LB	0.9450	0.7530
LC	0.9500	0.7580
LD	0.9200	0.7160
LE	0.9070	0.7160
LF	0.9550	0.7620
LG	0.8390	0.6800
LH	0.9350	0.7190
LI	0.9560	0.7390
LJ	0.8800	0.6850
LL	0.9100	0.7240
LM	0.9490	0.7300
LN	0.9980	0.7780
LO	0.9540	0.7570
LP	0.9600	0.7640
LQ	0.9810	0.7820
LR	0.8490	0.6920
LS	0.9790	0.7560
LT	0.9250	0.7400
LU	0.8200	0.6540
LV	0.9650	0.7600
LW	0.5570	0.5540
LX	0.9400	0.7380
LY	0.9280	0.7400
LZ	0.9330	0.7200
La	0.9770	0.7730
Lb	0.8050	0.6790
Lc	0.9110	0.7260
Ld	0.9050	0.7250
Le	0.9790	0.7790
Lf	0.9750	0.7730

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Chain	Atom inclusion	Q-score
Lg	0.9050	0.7370
Lh	0.9260	0.7320
Li	0.9070	0.7210
Lj	0.9910	0.7740
Lk	0.8270	0.6840
Ll	0.9760	0.7540
Lm	0.9380	0.7330
Ln	0.9500	0.7320
Lo	0.9260	0.7470
Lp	0.9360	0.7510
Lr	0.9660	0.7620
Pt	0.4250	0.6000
S2	0.8740	0.6160
SA	0.7440	0.6310
SB	0.7980	0.6670
SC	0.8050	0.6500
SD	0.5010	0.5400
SE	0.7260	0.6250
SF	0.6950	0.6120
SG	0.5300	0.5400
SH	0.5660	0.5770
SI	0.7920	0.6540
SJ	0.7020	0.6010
SK	0.4230	0.5040
SL	0.8390	0.6890
SM	0.0070	0.2880
SN	0.8960	0.7060
SO	0.8720	0.6880
SP	0.5240	0.5520
SQ	0.6820	0.5980
SR	0.5890	0.5660
SS	0.6750	0.6080
ST	0.6510	0.5890
SU	0.4910	0.5240
SV	0.7630	0.6480
SW	0.9200	0.6950
SX	0.8780	0.6760
SY	0.5720	0.5590
SZ	0.5120	0.5690
Sa	0.8900	0.6910
Sb	0.7210	0.6440
Sc	0.5630	0.5770

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Chain	Atom inclusion	Q-score
Sd	0.7960	0.6090
Se	0.6200	0.5770
Sf	0.0620	0.3100
Sg	0.2780	0.4970
mR	0.2500	0.4990