Full wwPDB EM Validation Report ⓘ

Apr 15, 2026 – 03:32 AM UTC

PDB ID	:	9P7I / pdb_00009p7i
EMDB ID	:	EMD-71343
Title	:	In situ HHT and CHX treated human eEF1A-A/T-P-Z state 80S ribosome
Authors	:	Wei, Z.; Yong, X.
Deposited on	:	2025-06-20
Resolution	:	3.69 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:

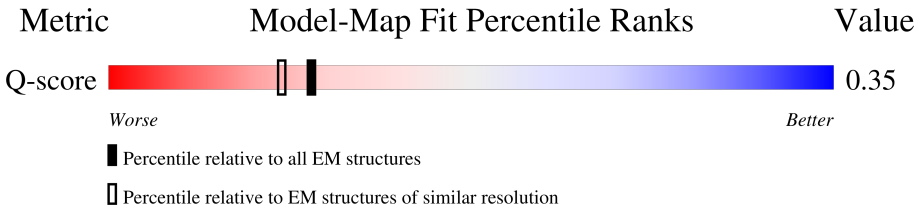
EMDB validation analysis	:	0.0.1.dev132
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	FAILED
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.69 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	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Q-score	25397	11284 (3.19 - 4.18)

MolProbity failed to run properly - the sequence quality summary graphics cannot be shown.

2 Entry composition

There are 92 unique types of molecules in this entry. The entry contains 225029 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 P site tRNA [Homo sapiens].

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	Pt	74	1576	705	286	512	73	0	0

- Molecule 2 is a protein called Elongation factor 1-alpha 1.

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	N	O	P	S		
2	CF	441	3383	2148	581	636	1	17	0	0

- Molecule 3 is a RNA chain called A/T site tRNA [Homo sapiens].

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	AT	76	1616	723	291	527	75	0	0

- Molecule 4 is a RNA chain called 28S rRNA [Homo sapiens].

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	L5	3655	78444	34968	14346	25475	3655	1	0

- Molecule 5 is a RNA chain called 5S rRNA [Homo sapiens].

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
5	L7	120	2561	1141	456	844	120	0	0

- Molecule 6 is a RNA chain called 5.8S rRNA [Homo sapiens].

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
6	L8	156	3315	1481	585	1094	155	0	0

- Molecule 7 is a protein called 60S ribosomal protein L8.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	LA	248	Total	C	N	O	S	0	0
			1898	1189	389	314	6		

- Molecule 8 is a protein called Large ribosomal subunit protein uL3.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	LB	402	Total	C	N	O	S	0	0
			3238	2060	608	556	14		

- Molecule 9 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	LC	368	Total	C	N	O	S	0	0
			2927	1840	583	489	15		

- Molecule 10 is a protein called Large ribosomal subunit protein uL18.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	LD	293	Total	C	N	O	S	0	0
			2382	1507	434	427	14		

- Molecule 11 is a protein called Large ribosomal subunit protein eL6.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	LE	240	Total	C	N	O	S	0	0
			1935	1242	368	321	4		

- Molecule 12 is a protein called 60S ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	LF	225	Total	C	N	O	S	0	0
			1870	1202	358	301	9		

- Molecule 13 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	LG	241	Total	C	N	O	S	0	0
			1927	1228	371	324	4		

- Molecule 14 is a protein called 60S ribosomal protein L9.

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

- Molecule 15 is a protein called Ribosomal protein uL16-like.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	LI	213	Total	C	N	O	S	0	0
			1711	1082	329	285	15		

- Molecule 16 is a protein called 60S ribosomal protein L11.

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

- Molecule 17 is a protein called Large ribosomal subunit protein eL13.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	LL	210	Total	C	N	O	S	0	0
			1701	1064	352	281	4		

- Molecule 18 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	LM	139	Total	C	N	O	S	0	0
			1138	730	218	183	7		

- Molecule 19 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	LN	203	Total	C	N	O	S	0	0
			1701	1072	359	266	4		

- Molecule 20 is a protein called 60S ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	LO	201	Total	C	N	O	S	0	0
			1650	1063	321	261	5		

- Molecule 21 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	LP	153	Total	C	N	O	S	0	0
			1242	776	241	216	9		

- Molecule 22 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	LQ	187	Total	C	N	O	S	0	0
			1513	944	314	250	5		

- Molecule 23 is a protein called 60S ribosomal protein L19.

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

- Molecule 24 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	LS	175	Total	C	N	O	S	0	0
			1453	925	283	235	10		

- Molecule 25 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	LT	159	Total	C	N	O	S	0	0
			1298	823	252	217	6		

- Molecule 26 is a protein called Heparin-binding protein HBp15.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	LU	101	Total	C	N	O	S	0	0
			825	529	144	150	2		

- Molecule 27 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	LV	131	Total	C	N	O	S	0	0
			979	618	184	172	5		

- Molecule 28 is a protein called Ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	LW	116	Total	C	N	O	S	0	0
			945	592	193	156	4		

- Molecule 29 is a protein called 60S ribosomal protein L23a.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	LX	120	Total	C	N	O	S	0	0
			985	630	185	169	1		

- Molecule 30 is a protein called 60S ribosomal protein L26.

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

- Molecule 31 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	LZ	135	Total	C	N	O	S	0	0
			1107	714	208	182	3		

- Molecule 32 is a protein called 60S ribosomal protein L27a.

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

- Molecule 33 is a protein called Large ribosomal subunit protein eL29.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Lb	109	Total	C	N	O	S	0	0
			876	546	189	137	4		

- Molecule 34 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Lc	98	Total	C	N	O	S	0	0
			764	485	135	138	6		

- Molecule 35 is a protein called 60S ribosomal protein L31.

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

- Molecule 36 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Le	128	Total	C	N	O	S	0	0
			1053	667	216	165	5		

- Molecule 37 is a protein called 60S ribosomal protein L35a.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Lf	109	Total	C	N	O	S	0	0
			876	555	174	144	3		

- Molecule 38 is a protein called 60S ribosomal protein L34.

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

- Molecule 39 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Lh	122	Total	C	N	O	S	0	0
			1015	641	205	168	1		

- Molecule 40 is a protein called 60S ribosomal protein L36.

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

- Molecule 41 is a protein called 60S ribosomal protein L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	Lj	86	Total	C	N	O	S	0	0
			705	434	155	111	5		

- Molecule 42 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	Lk	69	Total	C	N	O	S	0	0
			569	366	103	99	1		

- Molecule 43 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Ll	50	Total	C	N	O	S	0	0
			444	281	98	64	1		

- Molecule 44 is a protein called Large ribosomal subunit protein eL40.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Lm	52	Total	C	N	O	S	0	0
			429	266	90	67	6		

- Molecule 45 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Ln	24	Total	C	N	O	S	0	0
			230	139	62	26	3		

- Molecule 46 is a protein called 60S ribosomal protein L36a.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	Lo	105	Total	C	N	O	S	0	0
			862	542	175	139	6		

- Molecule 47 is a protein called 60S ribosomal protein L37a.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	Lp	91	Total	C	N	O	S	0	0
			708	445	136	120	7		

- Molecule 48 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	Lr	125	Total	C	N	O	S	0	0
			1002	622	207	168	5		

- Molecule 49 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	Ls	196	Total	C	N	O	S	0	0
			1496	952	259	276	9		

- Molecule 50 is a protein called Large ribosomal subunit protein uL11.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	Lt	134	Total	C	N	O	S	0	0
			998	626	180	189	3		

- Molecule 51 is a protein called Small ribosomal subunit protein uS3.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	SD	227	Total	C	N	O	S	0	0
			1765	1125	317	315	8		

- Molecule 52 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	SF	189	Total	C	N	O	S	0	0
			1495	934	284	270	7		

- Molecule 53 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	SK	98	Total	C	N	O	S	0	0
			827	539	148	134	6		

- Molecule 54 is a protein called Small ribosomal subunit protein eS12.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	SM	122	Total	C	N	O	S	0	0
			940	590	164	177	9		

- Molecule 55 is a protein called Small ribosomal subunit protein uS19.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	SP	121	Total	C	N	O	S	0	0
			985	623	185	170	7		

- Molecule 56 is a protein called Small ribosomal subunit protein uS9.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	SQ	144	Total	C	N	O	S	0	0
			1142	726	216	197	3		

- Molecule 57 is a protein called Small ribosomal subunit protein eS17.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	SR	135	Total	C	N	O	S	0	0
			1090	685	202	198	5		

- Molecule 58 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	SS	145	Total	C	N	O	S	0	0
			1198	751	242	203	2		

- Molecule 59 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	ST	143	Total	C	N	O	S	0	0
			1112	697	214	198	3		

- Molecule 60 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	SU	104	Total	C	N	O	S	0	0
			821	514	155	148	4		

- Molecule 61 is a protein called Small ribosomal subunit protein eS25.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	SZ	75	Total	C	N	O	S	0	0
			598	382	111	104	1		

- Molecule 62 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	Sc	64	Total	C	N	O	S	0	0
			506	308	102	94	2		

- Molecule 63 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Sd	55	Total	C	N	O	S	0	0
			459	286	94	74	5		

- Molecule 64 is a protein called Ubiquitin-40S ribosomal protein S27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Sf	67	Total	C	N	O	S	0	0
			548	346	102	93	7		

- Molecule 65 is a protein called Receptor of activated protein C kinase 1.

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

- Molecule 66 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	SA	221	Total	C	N	O	S	0	0
			1741	1106	305	322	8		

- Molecule 67 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	SB	214	Total	C	N	O	S	0	0
			1738	1103	310	311	14		

- Molecule 68 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	SC	220	Total	C	N	O	S	0	0
			1707	1104	293	300	10		

- Molecule 69 is a protein called Small ribosomal subunit protein eS4, X isoform.

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

- Molecule 70 is a protein called 40S ribosomal protein S6.

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

- Molecule 71 is a protein called Small ribosomal subunit protein eS7.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	SH	186	Total	C	N	O	S	0	0
			1497	956	274	266	1		

- Molecule 72 is a protein called 40S ribosomal protein S8.

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

- Molecule 73 is a protein called 40S ribosomal protein S9.

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

- Molecule 74 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	SL	153	Total	C	N	O	S	0	0
			1247	793	234	214	6		

- Molecule 75 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	SN	150	Total	C	N	O	S	0	0
			1208	773	229	205	1		

- Molecule 76 is a protein called Small ribosomal subunit protein uS11.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	SO	137	Total	C	N	O	S	0	0
			1024	627	200	191	6		

- Molecule 77 is a protein called Small ribosomal subunit protein eS21.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	SV	83	Total	C	N	O	S	0	0
			636	393	117	121	5		

- Molecule 78 is a protein called 40S ribosomal protein S15a.

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

- Molecule 79 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	SX	141	Total	C	N	O	S	0	0
			1098	693	219	183	3		

- Molecule 80 is a protein called 40S ribosomal protein S24.

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

- Molecule 81 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	Sa	102	Total	C	N	O	S	0	0
			821	512	171	133	5		

- Molecule 82 is a protein called Small ribosomal subunit protein eS27.

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

- Molecule 83 is a protein called Small ribosomal subunit protein eS30.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Se	58	Total	C	N	O	S	0	0
			459	284	100	74	1		

- Molecule 84 is a RNA chain called 18S rRNA [Homo sapiens].

Mol	Chain	Residues	Atoms					AltConf	Trace
84	S2	1740	Total 36953	C 16508	N 6600	O 12106	P 1739	0	0

- Molecule 85 is a RNA chain called Z site tRNA [Homo sapiens].

Mol	Chain	Residues	Atoms					AltConf	Trace
85	Zt	75	Total 1593	C 712	N 281	O 526	P 74	0	0

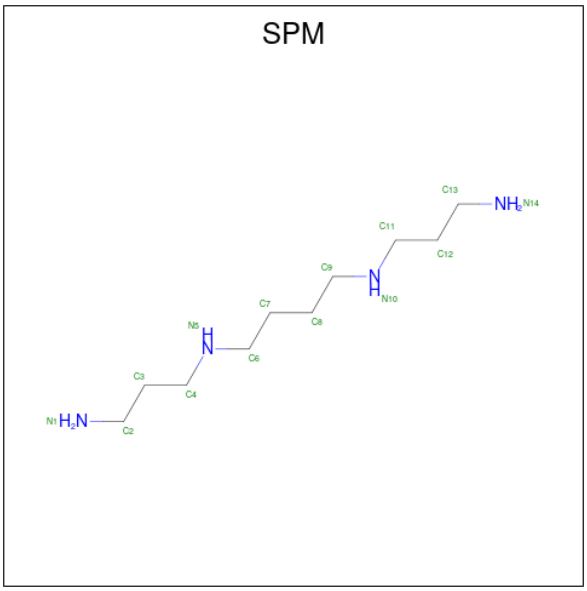
- Molecule 86 is a protein called Transcription factor BTF3.

Mol	Chain	Residues	Atoms					AltConf	Trace
86	CI	31	Total 247	C 153	N 55	O 38	S 1	0	0

- Molecule 87 is MAGNESIUM ION (CCD ID: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

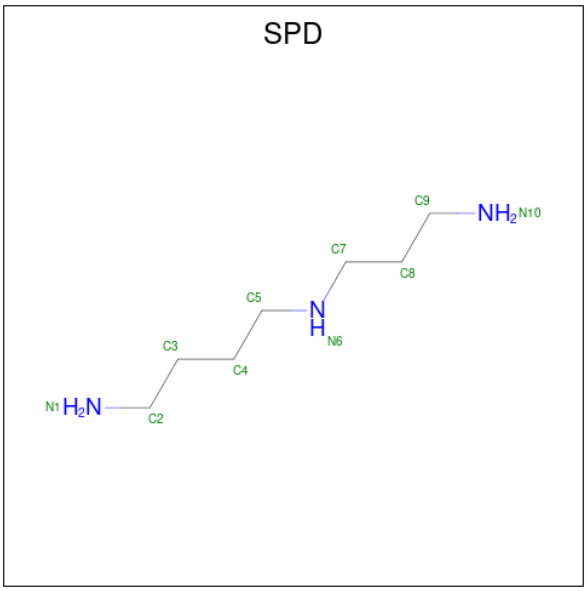
Mol	Chain	Residues	Atoms		AltConf
87	L5	179	Total 179	Mg 179	0
87	L7	3	Total 3	Mg 3	0
87	L8	4	Total 4	Mg 4	0
87	LA	1	Total 1	Mg 1	0
87	LP	1	Total 1	Mg 1	0
87	LV	1	Total 1	Mg 1	0
87	Le	1	Total 1	Mg 1	0
87	Lj	1	Total 1	Mg 1	0
87	SS	1	Total 1	Mg 1	0
87	S2	27	Total 27	Mg 27	0

- Molecule 88 is SPERMINE (CCD ID: SPM) (formula: $C_{10}H_{26}N_4$) (labeled as "Ligand of Interest" by depositor).



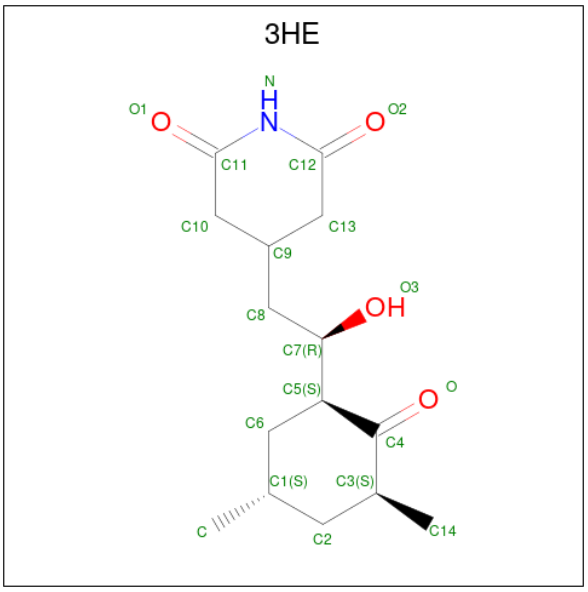
Mol	Chain	Residues	Atoms	AltConf
88	L5	1	Total C N 14 10 4	0
88	L5	1	Total C N 14 10 4	0
88	L5	1	Total C N 14 10 4	0
88	L5	1	Total C N 14 10 4	0
88	L5	1	Total C N 14 10 4	0
88	L5	1	Total C N 14 10 4	0
88	L5	1	Total C N 14 10 4	0

- Molecule 89 is SPERMIDINE (CCD ID: SPD) (formula: $C_7H_{19}N_3$) (labeled as "Ligand of Interest" by depositor).



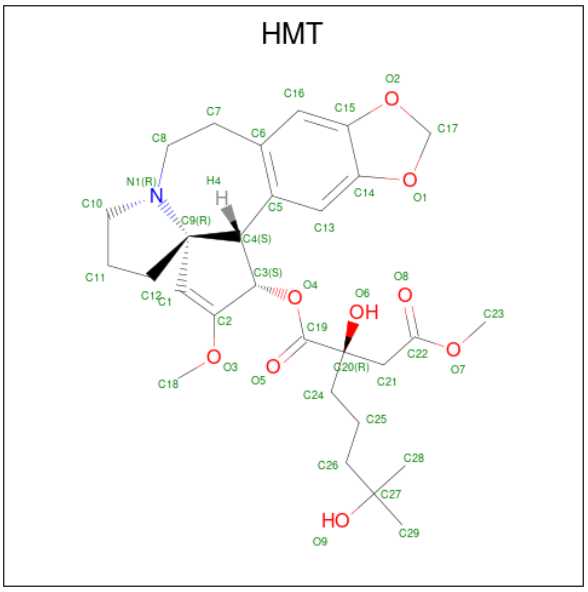
Mol	Chain	Residues	Atoms	AltConf
89	L5	1	Total C N 10 7 3	0
89	L5	1	Total C N 10 7 3	0
89	L5	1	Total C N 10 7 3	0
89	L5	1	Total C N 10 7 3	0
89	L5	1	Total C N 10 7 3	0
89	L5	1	Total C N 10 7 3	0
89	L5	1	Total C N 10 7 3	0
89	L5	1	Total C N 10 7 3	0
89	L5	1	Total C N 10 7 3	0
89	LN	1	Total C N 10 7 3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

- Molecule 90 is 4-{(2R)-2-[(1S,3S,5S)-3,5-dimethyl-2-oxocyclohexyl]-2-hydroxyethyl}piperidine-2,6-dione (CCD ID: 3HE) (formula: $C_{15}H_{23}NO_4$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
90	L5	1	20	15	1	4	0

- Molecule 91 is (3beta)-O 3 -[(2R)-2,6-dihydroxy-2-(2-methoxy-2-oxoethyl)-6-methylheptan oyl]cephalotaxine (CCD ID: HMT) (formula: $C_{29}H_{39}NO_9$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
91	L5	1	39	29	1	9	0

- Molecule 92 is ZINC ION (CCD ID: ZN) (formula: Zn) (labeled as "Ligand of Interest" by

depositor).

Mol	Chain	Residues	Atoms	AltConf
92	Lg	1	Total Zn 1 1	0
92	Lj	1	Total Zn 1 1	0
92	Lm	1	Total Zn 1 1	0
92	Lo	1	Total Zn 1 1	0
92	Lp	1	Total Zn 1 1	0
92	Sa	1	Total Zn 1 1	0

MolProbity failed to run properly - this section is therefore empty.

3 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	9091	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	50	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.588	Depositor
Minimum map value	-0.226	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.036	Depositor
Recommended contour level	0.0792	Depositor
Map size (Å)	546.816, 546.816, 546.816	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.068, 1.068, 1.068	Depositor

4 Model quality

4.1 Standard geometry

MolProbity failed to run properly - this section is therefore empty.

4.2 Too-close contacts

MolProbity failed to run properly - this section is therefore empty.

4.3 Torsion angles

4.3.1 Protein backbone

MolProbity failed to run properly - this section is therefore empty.

4.3.2 Protein sidechains

MolProbity failed to run properly - this section is therefore empty.

4.3.3 RNA

MolProbity failed to run properly - this section is therefore empty.

4.4 Non-standard residues in protein, DNA, RNA chains

179 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	$\#\|Z\| > 2$
84	PSU	S2	93	84	18,21,22	1.10	1 (5%)	21,30,33	1.83	4 (19%)
84	A2M	S2	468	84	22,25,26	1.21	1 (4%)	30,36,39	1.53	7 (23%)
4	PSU	L5	3639	4	18,21,22	1.12	1 (5%)	21,30,33	1.91	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
84	OMU	S2	116	84	19,22,23	3.33	7 (36%)	25,31,34	1.69	5 (20%)
4	OMC	L5	3701	4	19,22,23	0.56	0	25,31,34	0.82	1 (4%)
4	OMG	L5	3627	4	23,26,27	0.46	0	32,38,41	0.56	0
84	A2M	S2	668	84,87	22,25,26	1.26	2 (9%)	30,36,39	1.57	7 (23%)
4	PSU	L5	4689	4	18,21,22	1.04	1 (5%)	21,30,33	1.88	4 (19%)
4	A2M	L5	1871	87,4	22,25,26	1.19	1 (4%)	30,36,39	1.52	7 (23%)
4	A2M	L5	3830	4	22,25,26	1.21	1 (4%)	30,36,39	1.60	7 (23%)
4	A2M	L5	1534	87,4	22,25,26	1.20	1 (4%)	30,36,39	1.59	8 (26%)
4	A2M	L5	3785	87,4	22,25,26	1.21	1 (4%)	30,36,39	1.72	9 (30%)
2	SEP	CF	163	2	8,9,10	1.61	1 (12%)	7,12,14	1.21	1 (14%)
4	OMG	L5	3744	4	23,26,27	0.48	0	32,38,41	0.45	0
4	6MZ	L5	4220	4	22,25,26	4.00	11 (50%)	29,36,39	2.44	12 (41%)
84	OMU	S2	1442	84	19,22,23	3.40	7 (36%)	25,31,34	1.80	5 (20%)
84	OMU	S2	172	84	19,22,23	3.38	7 (36%)	25,31,34	1.82	5 (20%)
4	PSU	L5	4431	4	18,21,22	1.10	1 (5%)	21,30,33	1.94	5 (23%)
4	5MC	L5	3782	87,4	19,22,23	0.52	0	26,32,35	0.80	1 (3%)
4	A2M	L5	1524	4	22,25,26	1.30	2 (9%)	30,36,39	1.54	8 (26%)
4	OMC	L5	4456	4	19,22,23	0.56	0	25,31,34	0.79	1 (4%)
84	OMG	S2	644	84	23,26,27	0.45	0	32,38,41	0.48	0
84	OMU	S2	121	84	19,22,23	3.39	7 (36%)	25,31,34	1.79	5 (20%)
4	OMG	L5	4618	4	23,26,27	0.48	0	32,38,41	0.55	0
6	OMG	L8	75	6	23,26,27	0.46	0	32,38,41	0.51	0
84	PSU	S2	649	84	18,21,22	1.07	1 (5%)	21,30,33	1.90	4 (19%)
84	PSU	S2	686	84	18,21,22	1.11	1 (5%)	21,30,33	1.90	5 (23%)
4	OMC	L5	2861	4	19,22,23	0.56	0	25,31,34	1.00	2 (8%)
84	PSU	S2	866	84	18,21,22	1.13	1 (5%)	21,30,33	1.92	5 (23%)
4	PSU	L5	3920	87,4	18,21,22	1.08	1 (5%)	21,30,33	1.89	5 (23%)
4	PSU	L5	3851	87,4	18,21,22	1.08	1 (5%)	21,30,33	1.80	4 (19%)
6	PSU	L8	69	6	18,21,22	1.09	1 (5%)	21,30,33	1.82	5 (23%)
4	OMG	L5	4623	4	23,26,27	0.48	0	32,38,41	0.46	0
4	A2M	L5	4590	4	22,25,26	1.18	1 (4%)	30,36,39	1.60	7 (23%)
4	OMC	L5	3808	4	19,22,23	0.59	0	25,31,34	0.95	2 (8%)
84	PSU	S2	801	84	18,21,22	1.11	1 (5%)	21,30,33	1.85	4 (19%)
4	OMC	L5	3869	4	19,22,23	0.51	0	25,31,34	0.64	0
4	PSU	L5	4579	4	18,21,22	1.07	1 (5%)	21,30,33	1.81	4 (19%)
4	PSU	L5	1781	4	18,21,22	1.07	1 (5%)	21,30,33	1.81	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
4	OMU	L5	4227	4	19,22,23	3.36	7 (36%)	25,31,34	1.83	5 (20%)
84	PSU	S2	1232	84	18,21,22	1.13	1 (5%)	21,30,33	1.87	4 (19%)
84	OMU	S2	428	84	19,22,23	3.37	7 (36%)	25,31,34	1.83	5 (20%)
4	UR3	L5	4530	4	19,22,23	2.78	7 (36%)	26,32,35	1.58	3 (11%)
4	PSU	L5	3637	4	18,21,22	1.11	1 (5%)	21,30,33	2.04	5 (23%)
4	PSU	L5	3695	4	18,21,22	1.09	1 (5%)	21,30,33	1.88	5 (23%)
4	A2M	L5	2815	4	22,25,26	1.18	1 (4%)	30,36,39	1.44	9 (30%)
4	PSU	L5	4299	4	18,21,22	1.10	1 (5%)	21,30,33	1.93	4 (19%)
4	PSU	L5	4493	4	18,21,22	1.08	1 (5%)	21,30,33	1.92	5 (23%)
84	B8N	S2	1248	84	25,29,30	3.29	6 (24%)	28,42,45	1.98	8 (28%)
84	OMC	S2	1272	84	19,22,23	0.53	0	25,31,34	0.82	1 (4%)
4	OMG	L5	1316	4	23,26,27	0.49	0	32,38,41	0.47	0
84	A2M	S2	484	84	22,25,26	1.21	1 (4%)	30,36,39	1.52	7 (23%)
84	PSU	S2	1081	84	18,21,22	1.13	1 (5%)	21,30,33	1.91	5 (23%)
4	PSU	L5	4636	4	18,21,22	1.11	1 (5%)	21,30,33	2.04	6 (28%)
4	OMC	L5	4536	4	19,22,23	0.58	0	25,31,34	0.79	0
84	OMU	S2	354	84	19,22,23	3.35	7 (36%)	25,31,34	1.82	5 (20%)
4	A2M	L5	2787	4	22,25,26	1.19	1 (4%)	30,36,39	1.48	7 (23%)
4	OMU	L5	4498	4	19,22,23	3.37	7 (36%)	25,31,34	1.81	5 (20%)
4	OMU	L5	3925	4	19,22,23	3.32	7 (36%)	25,31,34	1.87	5 (20%)
4	OMG	L5	4499	4	23,26,27	0.45	0	32,38,41	0.49	0
84	OMG	S2	601	84	23,26,27	0.48	0	32,38,41	0.64	0
4	OMC	L5	2365	87,4	19,22,23	0.53	0	25,31,34	0.63	0
84	OMG	S2	509	84	23,26,27	0.47	0	32,38,41	0.47	0
84	A2M	S2	27	84	22,25,26	1.26	1 (4%)	30,36,39	1.53	7 (23%)
84	OMG	S2	683	84	23,26,27	0.51	0	32,38,41	0.45	0
4	PSU	L5	3822	4	18,21,22	1.13	2 (11%)	21,30,33	1.99	6 (28%)
4	A2M	L5	3867	4	22,25,26	1.25	2 (9%)	30,36,39	1.51	9 (30%)
4	PSU	L5	4296	4	18,21,22	1.10	1 (5%)	21,30,33	1.96	5 (23%)
84	OMG	S2	1490	84	23,26,27	0.50	0	32,38,41	0.46	0
84	OMG	S2	867	84	23,26,27	0.48	0	32,38,41	0.47	0
84	PSU	S2	1046	84	18,21,22	1.11	1 (5%)	21,30,33	1.80	4 (19%)
84	6MZ	S2	1832	84,87	26,26,26	2.86	5 (19%)	36,39,39	2.04	10 (27%)
4	PSU	L5	1677	4	18,21,22	1.09	2 (11%)	21,30,33	1.95	5 (23%)
84	A2M	S2	99	84,87	22,25,26	1.19	1 (4%)	30,36,39	1.53	7 (23%)
84	MA6	S2	1851	84	23,26,27	1.28	2 (8%)	33,38,41	3.36	12 (36%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
84	4AC	S2	1337	84	21,24,25	0.37	0	28,34,37	0.64	1 (3%)
4	PSU	L5	1744	87,4	18,21,22	1.08	1 (5%)	21,30,33	1.90	6 (28%)
4	A2M	L5	398	4	22,25,26	1.22	1 (4%)	30,36,39	1.60	7 (23%)
84	PSU	S2	1244	84	18,21,22	1.14	1 (5%)	21,30,33	1.88	4 (19%)
4	OMG	L5	4494	4	23,26,27	0.47	0	32,38,41	0.46	0
84	PSU	S2	109	84	18,21,22	1.11	1 (5%)	21,30,33	1.89	4 (19%)
4	OMC	L5	2422	87,4	19,22,23	0.54	0	25,31,34	0.69	0
4	PSU	L5	4500	4	18,21,22	1.13	1 (5%)	21,30,33	1.95	5 (23%)
4	PSU	L5	5001	4	18,21,22	1.10	1 (5%)	21,30,33	1.82	4 (19%)
84	4AC	S2	1842	84	21,24,25	0.38	0	28,34,37	0.45	0
4	PSU	L5	3844	4	18,21,22	1.10	1 (5%)	21,30,33	1.91	4 (19%)
4	A2M	L5	1326	87,4	22,25,26	1.18	1 (4%)	30,36,39	1.54	9 (30%)
4	A2M	L5	4571	4	22,25,26	1.23	1 (4%)	30,36,39	1.58	6 (20%)
4	PSU	L5	4471	4	18,21,22	1.06	1 (5%)	21,30,33	1.83	4 (19%)
84	PSU	S2	1004	84	18,21,22	1.09	1 (5%)	21,30,33	1.84	4 (19%)
4	PSU	L5	1860	4	18,21,22	1.13	1 (5%)	21,30,33	1.90	4 (19%)
4	A2M	L5	2363	87,4	22,25,26	1.18	1 (4%)	30,36,39	1.51	8 (26%)
4	OMU	L5	4306	4	19,22,23	3.34	7 (36%)	25,31,34	1.77	4 (16%)
4	UY1	L5	3818	4	19,22,23	4.96	9 (47%)	21,31,34	2.02	6 (28%)
4	OMG	L5	3792	4	23,26,27	0.47	0	32,38,41	0.50	0
84	PSU	S2	863	84	18,21,22	1.10	1 (5%)	21,30,33	1.87	4 (19%)
84	PSU	S2	1367	84	18,21,22	1.12	1 (5%)	21,30,33	1.90	4 (19%)
84	A2M	S2	1031	84	22,25,26	1.20	1 (4%)	30,36,39	1.55	7 (23%)
4	A2M	L5	1323	4	22,25,26	1.23	2 (9%)	30,36,39	1.62	9 (30%)
6	PSU	L8	55	6	18,21,22	1.13	1 (5%)	21,30,33	1.90	4 (19%)
84	A2M	S2	166	84	22,25,26	1.27	1 (4%)	30,36,39	1.65	7 (23%)
84	PSU	S2	406	84	18,21,22	1.12	1 (5%)	21,30,33	1.84	4 (19%)
4	A2M	L5	3825	4	22,25,26	1.22	1 (4%)	30,36,39	1.57	8 (26%)
84	A2M	S2	1383	84	22,25,26	1.26	1 (4%)	30,36,39	1.70	7 (23%)
4	OMC	L5	3887	4	19,22,23	0.54	0	25,31,34	0.78	0
4	A2M	L5	2401	4	22,25,26	1.20	1 (4%)	30,36,39	1.56	7 (23%)
84	OMC	S2	1391	84	19,22,23	0.51	0	25,31,34	0.67	0
4	PSU	L5	2632	4	18,21,22	1.09	1 (5%)	21,30,33	1.99	5 (23%)
4	PSU	L5	5010	4	18,21,22	1.13	1 (5%)	21,30,33	1.91	4 (19%)
4	OMC	L5	2351	87,4	19,22,23	0.54	0	25,31,34	0.83	1 (4%)
4	A2M	L5	3718	4	22,25,26	1.19	1 (4%)	30,36,39	1.52	7 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
4	PSU	L5	1683	4	18,21,22	1.10	1 (5%)	21,30,33	1.88	4 (19%)
4	OMG	L5	4392	4	23,26,27	0.47	0	32,38,41	0.45	0
84	G7M	S2	1639	84,1	23,26,27	2.65	9 (39%)	34,39,42	2.63	11 (32%)
4	PSU	L5	1792	4	18,21,22	1.06	1 (5%)	21,30,33	1.86	4 (19%)
4	OMU	L5	4620	4	19,22,23	3.34	7 (36%)	25,31,34	1.77	4 (16%)
4	OMG	L5	2364	87,4	23,26,27	0.48	0	32,38,41	0.47	0
4	PSU	L5	2839	4	18,21,22	1.08	1 (5%)	21,30,33	1.93	5 (23%)
84	PSU	S2	966	84,87	18,21,22	1.05	1 (5%)	21,30,33	1.85	4 (19%)
4	OMG	L5	4637	4	23,26,27	0.49	0	32,38,41	0.49	0
4	OMG	L5	1625	4	23,26,27	0.47	0	32,38,41	0.47	0
4	PSU	L5	4972	4	18,21,22	1.09	1 (5%)	21,30,33	1.90	6 (28%)
84	A2M	S2	576	84	22,25,26	1.18	1 (4%)	30,36,39	1.52	7 (23%)
4	PSU	L5	4973	4	18,21,22	1.08	1 (5%)	21,30,33	1.87	4 (19%)
4	OMG	L5	1522	4	23,26,27	0.47	0	32,38,41	0.58	0
4	OMU	L5	2837	4	19,22,23	3.35	7 (36%)	25,31,34	1.85	5 (20%)
4	OMG	L5	4196	1,4	23,26,27	0.46	0	32,38,41	0.47	0
4	PSU	L5	4353	4	18,21,22	1.10	1 (5%)	21,30,33	1.91	5 (23%)
4	PSU	L5	4361	4	18,21,22	1.07	1 (5%)	21,30,33	1.83	4 (19%)
84	PSU	S2	105	84	18,21,22	1.07	1 (5%)	21,30,33	1.86	4 (19%)
84	PSU	S2	1174	84	18,21,22	1.10	1 (5%)	21,30,33	1.86	4 (19%)
4	OMG	L5	2876	4	23,26,27	0.49	0	32,38,41	0.47	0
4	A2M	L5	400	4	22,25,26	1.25	1 (4%)	30,36,39	1.56	9 (30%)
4	PSU	L5	4576	4	18,21,22	1.08	1 (5%)	21,30,33	1.86	5 (23%)
84	PSU	S2	681	84	18,21,22	1.07	1 (5%)	21,30,33	1.88	4 (19%)
4	PSU	L5	1582	4	18,21,22	1.12	1 (5%)	21,30,33	1.75	4 (19%)
84	OMC	S2	1703	84	19,22,23	0.53	0	25,31,34	0.70	1 (4%)
4	OMC	L5	1340	4	19,22,23	0.53	0	25,31,34	0.74	0
4	1MA	L5	1322	87,4	21,25,26	0.47	0	30,37,40	0.75	1 (3%)
84	PSU	S2	1045	84	18,21,22	1.10	1 (5%)	21,30,33	1.89	4 (19%)
84	PSU	S2	651	84	18,21,22	1.14	1 (5%)	21,30,33	1.89	4 (19%)
84	OMC	S2	174	84	19,22,23	0.51	0	25,31,34	0.70	0
4	OMG	L5	4228	4	23,26,27	0.49	0	32,38,41	0.58	0
4	PSU	L5	4628	4	18,21,22	1.00	1 (5%)	21,30,33	1.85	4 (19%)
84	OMU	S2	1288	84	19,22,23	3.38	7 (36%)	25,31,34	1.80	5 (20%)
4	PSU	L5	3884	4	18,21,22	1.11	1 (5%)	21,30,33	1.89	4 (19%)
84	A2M	S2	159	84	22,25,26	1.26	1 (4%)	30,36,39	1.56	8 (26%)
4	OMC	L5	3841	4	19,22,23	0.51	0	25,31,34	0.70	1 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
4	OMC	L5	2804	4	19,22,23	0.53	0	25,31,34	0.65	0
84	PSU	S2	1056	84	18,21,22	1.07	1 (5%)	21,30,33	1.88	5 (23%)
4	5MC	L5	4447	4	19,22,23	0.63	0	26,32,35	0.54	0
4	PSU	L5	4457	4	18,21,22	1.10	1 (5%)	21,30,33	1.91	5 (23%)
84	OMU	S2	799	84	19,22,23	3.43	7 (36%)	25,31,34	1.78	5 (20%)
84	OMC	S2	517	84	19,22,23	0.54	0	25,31,34	0.64	0
4	PSU	L5	4403	4	18,21,22	1.02	1 (5%)	21,30,33	1.84	5 (23%)
4	OMG	L5	2424	4	23,26,27	0.49	0	32,38,41	0.48	0
4	PSU	L5	4442	4	18,21,22	1.13	1 (5%)	21,30,33	2.06	6 (28%)
4	A2M	L5	4523	87,4	22,25,26	1.27	1 (4%)	30,36,39	1.59	8 (26%)
4	OMC	L5	2824	4	19,22,23	0.54	0	25,31,34	0.81	1 (4%)
4	PSU	L5	4532	4	18,21,22	1.11	1 (5%)	21,30,33	1.89	4 (19%)
84	PSU	S2	814	84	18,21,22	1.12	1 (5%)	21,30,33	1.88	4 (19%)
84	OMG	S2	1328	84	23,26,27	0.45	0	32,38,41	0.44	0
4	PSU	L5	4521	87,4	18,21,22	1.11	1 (5%)	21,30,33	1.88	4 (19%)
84	OMU	S2	627	84	19,22,23	3.37	7 (36%)	25,31,34	1.80	5 (20%)
4	PSU	L5	1782	4	18,21,22	1.15	1 (5%)	21,30,33	1.91	4 (19%)
84	PSU	S2	1177	84	18,21,22	1.11	1 (5%)	21,30,33	1.87	4 (19%)
84	OMU	S2	1326	84	19,22,23	3.37	7 (36%)	25,31,34	1.81	5 (20%)
4	PSU	L5	4552	4	18,21,22	1.06	1 (5%)	21,30,33	1.86	4 (19%)
4	PSU	L5	1536	4	18,21,22	1.11	1 (5%)	21,30,33	1.99	4 (19%)
4	OMG	L5	4370	4	23,26,27	0.46	0	32,38,41	0.45	0
84	OMG	S2	436	84	23,26,27	0.46	0	32,38,41	0.51	0
4	PSU	L5	3853	87,4	18,21,22	1.07	1 (5%)	21,30,33	1.78	4 (19%)
84	MA6	S2	1850	84	23,26,27	1.28	2 (8%)	33,38,41	3.32	12 (36%)
4	PSU	L5	4312	4	18,21,22	1.08	1 (5%)	21,30,33	1.89	4 (19%)
4	PSU	L5	4293	4	18,21,22	1.13	2 (11%)	21,30,33	1.93	4 (19%)
84	OMC	S2	462	84	19,22,23	0.52	0	25,31,34	0.78	1 (4%)
4	PSU	L5	1862	4	18,21,22	1.12	1 (5%)	21,30,33	1.89	4 (19%)
4	PSU	L5	4673	4	18,21,22	1.08	1 (5%)	21,30,33	1.87	4 (19%)
4	OMG	L5	3899	4	23,26,27	0.51	0	32,38,41	0.49	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
84	PSU	S2	93	84	-	0/7/25/26	0/2/2/2
84	A2M	S2	468	84	-	1/9/27/28	0/3/3/3
4	PSU	L5	3639	4	-	0/7/25/26	0/2/2/2
84	OMU	S2	116	84	-	1/9/27/28	0/2/2/2
4	OMC	L5	3701	4	-	4/9/27/28	0/2/2/2
4	OMG	L5	3627	4	-	0/9/27/28	0/3/3/3
84	A2M	S2	668	84,87	-	3/9/27/28	0/3/3/3
4	PSU	L5	4689	4	-	0/7/25/26	0/2/2/2
4	A2M	L5	1871	87,4	-	0/9/27/28	0/3/3/3
4	A2M	L5	3830	4	-	1/9/27/28	0/3/3/3
4	A2M	L5	1534	87,4	-	2/9/27/28	0/3/3/3
4	A2M	L5	3785	87,4	-	0/9/27/28	0/3/3/3
2	SEP	CF	163	2	-	6/6/8/10	-
4	OMG	L5	3744	4	-	1/9/27/28	0/3/3/3
4	6MZ	L5	4220	4	-	4/9/27/28	0/3/3/3
84	OMU	S2	1442	84	-	2/9/27/28	0/2/2/2
84	OMU	S2	172	84	-	0/9/27/28	0/2/2/2
4	PSU	L5	4431	4	-	0/7/25/26	0/2/2/2
4	5MC	L5	3782	87,4	-	0/7/25/26	0/2/2/2
4	A2M	L5	1524	4	-	4/9/27/28	0/3/3/3
4	OMC	L5	4456	4	-	0/9/27/28	0/2/2/2
84	OMG	S2	644	84	-	4/9/27/28	0/3/3/3
84	OMU	S2	121	84	-	0/9/27/28	0/2/2/2
4	OMG	L5	4618	4	-	2/9/27/28	0/3/3/3
6	OMG	L8	75	6	-	1/9/27/28	0/3/3/3
84	PSU	S2	649	84	-	0/7/25/26	0/2/2/2
84	PSU	S2	686	84	-	0/7/25/26	0/2/2/2
4	OMC	L5	2861	4	-	3/9/27/28	0/2/2/2
84	PSU	S2	866	84	-	0/7/25/26	0/2/2/2
4	PSU	L5	3920	87,4	-	0/7/25/26	0/2/2/2
4	PSU	L5	3851	87,4	-	1/7/25/26	0/2/2/2
6	PSU	L8	69	6	-	0/7/25/26	0/2/2/2
4	OMG	L5	4623	4	-	1/9/27/28	0/3/3/3
4	A2M	L5	4590	4	-	4/9/27/28	0/3/3/3
4	OMC	L5	3808	4	-	0/9/27/28	0/2/2/2
84	PSU	S2	801	84	-	2/7/25/26	0/2/2/2
4	OMC	L5	3869	4	-	0/9/27/28	0/2/2/2
4	PSU	L5	4579	4	-	0/7/25/26	0/2/2/2
4	PSU	L5	1781	4	-	1/7/25/26	0/2/2/2
4	OMU	L5	4227	4	-	0/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
84	PSU	S2	1232	84	-	0/7/25/26	0/2/2/2
84	OMU	S2	428	84	-	3/9/27/28	0/2/2/2
4	UR3	L5	4530	4	-	0/7/25/26	0/2/2/2
4	PSU	L5	3637	4	-	0/7/25/26	0/2/2/2
4	PSU	L5	3695	4	-	0/7/25/26	0/2/2/2
4	A2M	L5	2815	4	-	2/9/27/28	0/3/3/3
4	PSU	L5	4299	4	-	0/7/25/26	0/2/2/2
4	PSU	L5	4493	4	-	0/7/25/26	0/2/2/2
84	B8N	S2	1248	84	-	4/16/34/35	0/2/2/2
84	OMC	S2	1272	84	-	2/9/27/28	0/2/2/2
4	OMG	L5	1316	4	-	1/9/27/28	0/3/3/3
84	A2M	S2	484	84	-	1/9/27/28	0/3/3/3
84	PSU	S2	1081	84	-	1/7/25/26	0/2/2/2
4	PSU	L5	4636	4	-	1/7/25/26	0/2/2/2
4	OMC	L5	4536	4	-	0/9/27/28	0/2/2/2
84	OMU	S2	354	84	-	1/9/27/28	0/2/2/2
4	A2M	L5	2787	4	-	5/9/27/28	0/3/3/3
4	OMU	L5	4498	4	-	0/9/27/28	0/2/2/2
4	OMU	L5	3925	4	-	0/9/27/28	0/2/2/2
4	OMG	L5	4499	4	-	0/9/27/28	0/3/3/3
84	OMG	S2	601	84	-	0/9/27/28	0/3/3/3
4	OMC	L5	2365	87,4	-	0/9/27/28	0/2/2/2
84	OMG	S2	509	84	-	1/9/27/28	0/3/3/3
84	A2M	S2	27	84	-	1/9/27/28	0/3/3/3
84	OMG	S2	683	84	-	2/9/27/28	0/3/3/3
4	PSU	L5	3822	4	-	2/7/25/26	0/2/2/2
4	A2M	L5	3867	4	-	1/9/27/28	0/3/3/3
4	PSU	L5	4296	4	-	2/7/25/26	0/2/2/2
84	OMG	S2	1490	84	-	1/9/27/28	0/3/3/3
84	OMG	S2	867	84	-	1/9/27/28	0/3/3/3
84	PSU	S2	1046	84	-	0/7/25/26	0/2/2/2
84	6MZ	S2	1832	84,87	-	7/12/28/28	0/3/3/3
4	PSU	L5	1677	4	-	2/7/25/26	0/2/2/2
84	A2M	S2	99	84,87	-	2/9/27/28	0/3/3/3
84	MA6	S2	1851	84	-	2/11/29/30	0/3/3/3
84	4AC	S2	1337	84	-	1/11/29/30	0/2/2/2
4	PSU	L5	1744	87,4	-	0/7/25/26	0/2/2/2
4	A2M	L5	398	4	-	0/9/27/28	0/3/3/3
84	PSU	S2	1244	84	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	OMG	L5	4494	4	-	0/9/27/28	0/3/3/3
84	PSU	S2	109	84	-	0/7/25/26	0/2/2/2
4	OMC	L5	2422	87,4	-	2/9/27/28	0/2/2/2
4	PSU	L5	4500	4	-	3/7/25/26	0/2/2/2
4	PSU	L5	5001	4	-	0/7/25/26	0/2/2/2
84	4AC	S2	1842	84	-	0/11/29/30	0/2/2/2
4	PSU	L5	3844	4	-	1/7/25/26	0/2/2/2
4	A2M	L5	1326	87,4	-	3/9/27/28	0/3/3/3
4	A2M	L5	4571	4	-	0/9/27/28	0/3/3/3
4	PSU	L5	4471	4	-	0/7/25/26	0/2/2/2
84	PSU	S2	1004	84	-	0/7/25/26	0/2/2/2
4	PSU	L5	1860	4	-	0/7/25/26	0/2/2/2
4	A2M	L5	2363	87,4	-	0/9/27/28	0/3/3/3
4	OMU	L5	4306	4	-	0/9/27/28	0/2/2/2
4	UY1	L5	3818	4	-	1/9/27/28	0/2/2/2
4	OMG	L5	3792	4	-	2/9/27/28	0/3/3/3
84	PSU	S2	863	84	-	0/7/25/26	0/2/2/2
84	PSU	S2	1367	84	-	0/7/25/26	0/2/2/2
84	A2M	S2	1031	84	-	0/9/27/28	0/3/3/3
4	A2M	L5	1323	4	-	3/9/27/28	0/3/3/3
6	PSU	L8	55	6	-	0/7/25/26	0/2/2/2
84	A2M	S2	166	84	-	0/9/27/28	0/3/3/3
84	PSU	S2	406	84	-	0/7/25/26	0/2/2/2
4	A2M	L5	3825	4	-	1/9/27/28	0/3/3/3
84	A2M	S2	1383	84	-	3/9/27/28	0/3/3/3
4	OMC	L5	3887	4	-	2/9/27/28	0/2/2/2
4	A2M	L5	2401	4	-	0/9/27/28	0/3/3/3
84	OMC	S2	1391	84	-	0/9/27/28	0/2/2/2
4	PSU	L5	2632	4	-	0/7/25/26	0/2/2/2
4	PSU	L5	5010	4	-	2/7/25/26	0/2/2/2
4	OMC	L5	2351	87,4	-	2/9/27/28	0/2/2/2
4	A2M	L5	3718	4	-	1/9/27/28	0/3/3/3
4	PSU	L5	1683	4	-	0/7/25/26	0/2/2/2
4	OMG	L5	4392	4	-	0/9/27/28	0/3/3/3
84	G7M	S2	1639	84,1	-	0/7/25/26	0/3/3/3
4	PSU	L5	1792	4	-	0/7/25/26	0/2/2/2
4	OMU	L5	4620	4	-	0/9/27/28	0/2/2/2
4	OMG	L5	2364	87,4	-	2/9/27/28	0/3/3/3
4	PSU	L5	2839	4	-	0/7/25/26	0/2/2/2
84	PSU	S2	966	84,87	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	OMG	L5	4637	4	-	1/9/27/28	0/3/3/3
4	OMG	L5	1625	4	-	2/9/27/28	0/3/3/3
4	PSU	L5	4972	4	-	0/7/25/26	0/2/2/2
84	A2M	S2	576	84	-	4/9/27/28	0/3/3/3
4	PSU	L5	4973	4	-	0/7/25/26	0/2/2/2
4	OMG	L5	1522	4	-	0/9/27/28	0/3/3/3
4	OMU	L5	2837	4	-	0/9/27/28	0/2/2/2
4	OMG	L5	4196	1,4	-	1/9/27/28	0/3/3/3
4	PSU	L5	4353	4	-	0/7/25/26	0/2/2/2
4	PSU	L5	4361	4	-	0/7/25/26	0/2/2/2
84	PSU	S2	105	84	-	0/7/25/26	0/2/2/2
84	PSU	S2	1174	84	-	0/7/25/26	0/2/2/2
4	OMG	L5	2876	4	-	0/9/27/28	0/3/3/3
4	A2M	L5	400	4	-	1/9/27/28	0/3/3/3
4	PSU	L5	4576	4	-	0/7/25/26	0/2/2/2
84	PSU	S2	681	84	-	0/7/25/26	0/2/2/2
4	PSU	L5	1582	4	-	0/7/25/26	0/2/2/2
84	OMC	S2	1703	84	-	0/9/27/28	0/2/2/2
4	OMC	L5	1340	4	-	1/9/27/28	0/2/2/2
4	1MA	L5	1322	87,4	-	0/7/25/26	0/3/3/3
84	PSU	S2	1045	84	-	2/7/25/26	0/2/2/2
84	PSU	S2	651	84	-	0/7/25/26	0/2/2/2
84	OMC	S2	174	84	-	0/9/27/28	0/2/2/2
4	OMG	L5	4228	4	-	0/9/27/28	0/3/3/3
4	PSU	L5	4628	4	-	0/7/25/26	0/2/2/2
84	OMU	S2	1288	84	-	2/9/27/28	0/2/2/2
4	PSU	L5	3884	4	-	0/7/25/26	0/2/2/2
84	A2M	S2	159	84	-	2/9/27/28	0/3/3/3
4	OMC	L5	3841	4	-	1/9/27/28	0/2/2/2
4	OMC	L5	2804	4	-	0/9/27/28	0/2/2/2
84	PSU	S2	1056	84	-	0/7/25/26	0/2/2/2
4	5MC	L5	4447	4	-	5/7/25/26	0/2/2/2
4	PSU	L5	4457	4	-	0/7/25/26	0/2/2/2
84	OMU	S2	799	84	-	2/9/27/28	0/2/2/2
84	OMC	S2	517	84	-	3/9/27/28	0/2/2/2
4	PSU	L5	4403	4	-	0/7/25/26	0/2/2/2
4	OMG	L5	2424	4	-	0/9/27/28	0/3/3/3
4	PSU	L5	4442	4	-	0/7/25/26	0/2/2/2
4	A2M	L5	4523	87,4	-	1/9/27/28	0/3/3/3
4	OMC	L5	2824	4	-	1/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	PSU	L5	4532	4	-	0/7/25/26	0/2/2/2
84	PSU	S2	814	84	-	0/7/25/26	0/2/2/2
84	OMG	S2	1328	84	-	0/9/27/28	0/3/3/3
4	PSU	L5	4521	87,4	-	2/7/25/26	0/2/2/2
84	OMU	S2	627	84	-	5/9/27/28	0/2/2/2
4	PSU	L5	1782	4	-	0/7/25/26	0/2/2/2
84	PSU	S2	1177	84	-	0/7/25/26	0/2/2/2
84	OMU	S2	1326	84	-	0/9/27/28	0/2/2/2
4	PSU	L5	4552	4	-	0/7/25/26	0/2/2/2
4	PSU	L5	1536	4	-	2/7/25/26	0/2/2/2
4	OMG	L5	4370	4	-	0/9/27/28	0/3/3/3
84	OMG	S2	436	84	-	0/9/27/28	0/3/3/3
4	PSU	L5	3853	87,4	-	0/7/25/26	0/2/2/2
84	MA6	S2	1850	84	-	0/11/29/30	0/3/3/3
4	PSU	L5	4312	4	-	0/7/25/26	0/2/2/2
4	PSU	L5	4293	4	-	1/7/25/26	0/2/2/2
84	OMC	S2	462	84	-	0/9/27/28	0/2/2/2
4	PSU	L5	1862	4	-	0/7/25/26	0/2/2/2
4	PSU	L5	4673	4	-	0/7/25/26	0/2/2/2
4	OMG	L5	3899	4	-	2/9/27/28	0/3/3/3

All (272) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	S2	1832	6MZ	C6-N6	12.93	1.49	1.34
4	L5	3818	UY1	C6-C5	12.90	1.49	1.35
4	L5	4220	6MZ	C6-N6	12.54	1.48	1.34
4	L5	3818	UY1	C2-N1	12.00	1.52	1.36
84	S2	1442	OMU	C2-N1	8.53	1.51	1.38
84	S2	799	OMU	C2-N1	8.51	1.51	1.38
4	L5	4220	6MZ	C3'-C2'	-8.35	1.30	1.53
84	S2	121	OMU	C2-N1	8.28	1.51	1.38
84	S2	627	OMU	C2-N1	8.27	1.51	1.38
84	S2	1288	OMU	C2-N1	8.27	1.51	1.38
84	S2	172	OMU	C2-N1	8.25	1.51	1.38
4	L5	4498	OMU	C2-N1	8.24	1.51	1.38
4	L5	4620	OMU	C2-N1	8.22	1.51	1.38
84	S2	354	OMU	C2-N1	8.19	1.51	1.38
84	S2	428	OMU	C2-N1	8.19	1.51	1.38
4	L5	2837	OMU	C2-N1	8.19	1.51	1.38
4	L5	4306	OMU	C2-N1	8.18	1.51	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	S2	1326	OMU	C2-N1	8.16	1.51	1.38
4	L5	4227	OMU	C2-N1	8.15	1.51	1.38
4	L5	3925	OMU	C2-N1	8.07	1.51	1.38
84	S2	116	OMU	C2-N1	8.05	1.51	1.38
84	S2	1248	B8N	C6-N1	7.92	1.55	1.36
4	L5	3818	UY1	C2-N3	7.86	1.50	1.37
84	S2	1248	B8N	C4-N3	-7.75	1.26	1.40
84	S2	1248	B8N	C4-C5	7.09	1.63	1.47
84	S2	799	OMU	C2-N3	7.07	1.50	1.38
84	S2	172	OMU	C2-N3	7.02	1.50	1.38
84	S2	1326	OMU	C2-N3	6.98	1.50	1.38
84	S2	116	OMU	C2-N3	6.97	1.50	1.38
84	S2	121	OMU	C2-N3	6.97	1.50	1.38
84	S2	428	OMU	C2-N3	6.94	1.50	1.38
4	L5	4498	OMU	C2-N3	6.94	1.50	1.38
84	S2	1288	OMU	C2-N3	6.93	1.50	1.38
84	S2	1442	OMU	C2-N3	6.93	1.50	1.38
84	S2	627	OMU	C2-N3	6.92	1.50	1.38
4	L5	4227	OMU	C2-N3	6.92	1.50	1.38
4	L5	4620	OMU	C2-N3	6.85	1.49	1.38
4	L5	3925	OMU	C2-N3	6.84	1.49	1.38
84	S2	354	OMU	C2-N3	6.83	1.49	1.38
4	L5	2837	OMU	C2-N3	6.81	1.49	1.38
4	L5	4306	OMU	C2-N3	6.80	1.49	1.38
4	L5	4530	UR3	C2-N1	6.63	1.47	1.38
84	S2	1639	G7M	C4-N3	6.54	1.49	1.34
4	L5	4530	UR3	C6-C5	6.31	1.49	1.35
84	S2	1248	B8N	C2-N1	6.00	1.56	1.39
84	S2	428	OMU	C6-C5	5.95	1.48	1.35
84	S2	354	OMU	C6-C5	5.93	1.48	1.35
84	S2	799	OMU	C6-C5	5.91	1.48	1.35
84	S2	1288	OMU	C6-C5	5.91	1.48	1.35
4	L5	4498	OMU	C6-C5	5.91	1.48	1.35
84	S2	121	OMU	C6-C5	5.91	1.48	1.35
4	L5	4530	UR3	C2-N3	5.89	1.50	1.39
4	L5	4227	OMU	C6-C5	5.88	1.48	1.35
84	S2	172	OMU	C6-C5	5.88	1.48	1.35
84	S2	1326	OMU	C6-C5	5.87	1.48	1.35
84	S2	116	OMU	C6-C5	5.85	1.48	1.35
84	S2	627	OMU	C6-C5	5.85	1.48	1.35
4	L5	4620	OMU	C6-C5	5.85	1.48	1.35
4	L5	4306	OMU	C6-C5	5.83	1.48	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	S2	1442	OMU	C6-C5	5.82	1.48	1.35
4	L5	3925	OMU	C6-C5	5.82	1.48	1.35
4	L5	2837	OMU	C6-C5	5.79	1.48	1.35
4	L5	3818	UY1	C6-N1	5.55	1.45	1.36
84	S2	1248	B8N	C6-C5	5.51	1.42	1.35
4	L5	4306	OMU	O4-C4	-5.50	1.13	1.24
4	L5	3925	OMU	O4-C4	-5.49	1.13	1.24
4	L5	4620	OMU	O4-C4	-5.48	1.13	1.24
4	L5	2837	OMU	O4-C4	-5.48	1.13	1.24
84	S2	1639	G7M	C2-N3	5.46	1.46	1.33
84	S2	1326	OMU	O4-C4	-5.46	1.13	1.24
4	L5	4227	OMU	O4-C4	-5.42	1.13	1.24
84	S2	121	OMU	O4-C4	-5.42	1.13	1.24
4	L5	4498	OMU	O4-C4	-5.42	1.13	1.24
84	S2	354	OMU	O4-C4	-5.41	1.14	1.24
84	S2	116	OMU	O4-C4	-5.41	1.14	1.24
84	S2	1442	OMU	O4-C4	-5.41	1.14	1.24
84	S2	172	OMU	O4-C4	-5.40	1.14	1.24
84	S2	799	OMU	O4-C4	-5.39	1.14	1.24
84	S2	428	OMU	O4-C4	-5.39	1.14	1.24
84	S2	627	OMU	O4-C4	-5.38	1.14	1.24
84	S2	1288	OMU	O4-C4	-5.35	1.14	1.24
84	S2	1639	G7M	C2-N2	4.93	1.45	1.34
4	L5	4220	6MZ	O4'-C1'	-4.68	1.31	1.42
4	L5	4220	6MZ	O4'-C4'	4.67	1.55	1.45
84	S2	1639	G7M	C5-N7	-4.66	1.33	1.39
4	L5	3818	UY1	C4-N3	4.58	1.47	1.38
84	S2	627	OMU	C4-N3	4.50	1.46	1.38
84	S2	1326	OMU	C4-N3	4.43	1.46	1.38
84	S2	1288	OMU	C4-N3	4.42	1.46	1.38
4	L5	4220	6MZ	C5'-C4'	-4.41	1.38	1.51
84	S2	172	OMU	C4-N3	4.40	1.46	1.38
84	S2	1442	OMU	C4-N3	4.39	1.46	1.38
84	S2	428	OMU	C4-N3	4.38	1.46	1.38
4	L5	4227	OMU	C4-N3	4.38	1.46	1.38
4	L5	2837	OMU	C4-N3	4.38	1.46	1.38
84	S2	799	OMU	C4-N3	4.37	1.46	1.38
84	S2	121	OMU	C4-N3	4.33	1.46	1.38
4	L5	4498	OMU	C4-N3	4.28	1.45	1.38
4	L5	4306	OMU	C4-N3	4.26	1.45	1.38
84	S2	354	OMU	C4-N3	4.25	1.45	1.38
84	S2	116	OMU	C4-N3	4.22	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	L5	4620	OMU	C4-N3	4.20	1.45	1.38
4	L5	3925	OMU	C4-N3	4.16	1.45	1.38
84	S2	1639	G7M	C5-C6	3.85	1.54	1.43
4	L5	1582	PSU	C6-C5	3.85	1.39	1.35
4	L5	1782	PSU	C6-C5	3.77	1.39	1.35
84	S2	866	PSU	C6-C5	3.75	1.39	1.35
84	S2	801	PSU	C6-C5	3.74	1.39	1.35
84	S2	1232	PSU	C6-C5	3.73	1.39	1.35
6	L8	55	PSU	C6-C5	3.73	1.39	1.35
84	S2	1244	PSU	C6-C5	3.73	1.39	1.35
84	S2	93	PSU	C6-C5	3.73	1.39	1.35
84	S2	1177	PSU	C6-C5	3.72	1.39	1.35
84	S2	1046	PSU	C6-C5	3.72	1.39	1.35
4	L5	3637	PSU	C6-C5	3.71	1.39	1.35
84	S2	1367	PSU	C6-C5	3.71	1.39	1.35
84	S2	651	PSU	C6-C5	3.70	1.39	1.35
4	L5	4532	PSU	C6-C5	3.68	1.39	1.35
4	L5	4500	PSU	C6-C5	3.67	1.39	1.35
84	S2	1248	B8N	C1'-C5	3.66	1.58	1.50
84	S2	406	PSU	C6-C5	3.66	1.39	1.35
84	S2	686	PSU	C6-C5	3.66	1.39	1.35
4	L5	1860	PSU	C6-C5	3.64	1.39	1.35
84	S2	109	PSU	C6-C5	3.63	1.39	1.35
84	S2	814	PSU	C6-C5	3.62	1.39	1.35
4	L5	1781	PSU	C6-C5	3.61	1.39	1.35
4	L5	1683	PSU	C6-C5	3.60	1.39	1.35
4	L5	5010	PSU	C6-C5	3.59	1.39	1.35
4	L5	3639	PSU	C6-C5	3.58	1.39	1.35
84	S2	1081	PSU	C6-C5	3.58	1.39	1.35
4	L5	1862	PSU	C6-C5	3.58	1.39	1.35
4	L5	4299	PSU	C6-C5	3.58	1.39	1.35
4	L5	1792	PSU	C6-C5	3.58	1.39	1.35
4	L5	3853	PSU	C6-C5	3.58	1.39	1.35
4	L5	4293	PSU	C6-C5	3.56	1.39	1.35
84	S2	1045	PSU	C6-C5	3.56	1.39	1.35
4	L5	5001	PSU	C6-C5	3.56	1.39	1.35
4	L5	3851	PSU	C6-C5	3.55	1.39	1.35
4	L5	4431	PSU	C6-C5	3.55	1.39	1.35
84	S2	1174	PSU	C6-C5	3.55	1.39	1.35
4	L5	1536	PSU	C6-C5	3.55	1.39	1.35
4	L5	3818	UY1	O4-C4	-3.55	1.16	1.23
4	L5	4471	PSU	C6-C5	3.55	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	S2	863	PSU	C6-C5	3.55	1.39	1.35
4	L5	3884	PSU	C6-C5	3.54	1.39	1.35
4	L5	4361	PSU	C6-C5	3.53	1.39	1.35
4	L5	4442	PSU	C6-C5	3.53	1.39	1.35
84	S2	1004	PSU	C6-C5	3.52	1.39	1.35
2	CF	163	SEP	P-O1P	3.52	1.61	1.50
4	L5	4296	PSU	C6-C5	3.52	1.39	1.35
4	L5	4353	PSU	C6-C5	3.51	1.39	1.35
4	L5	3844	PSU	C6-C5	3.51	1.39	1.35
6	L8	69	PSU	C6-C5	3.50	1.39	1.35
4	L5	2632	PSU	C6-C5	3.49	1.39	1.35
4	L5	4493	PSU	C6-C5	3.49	1.39	1.35
4	L5	4521	PSU	C6-C5	3.49	1.39	1.35
4	L5	4972	PSU	C6-C5	3.49	1.39	1.35
84	S2	105	PSU	C6-C5	3.49	1.39	1.35
4	L5	3695	PSU	C6-C5	3.48	1.39	1.35
4	L5	4636	PSU	C6-C5	3.48	1.39	1.35
4	L5	4579	PSU	C6-C5	3.47	1.39	1.35
4	L5	3822	PSU	C6-C5	3.46	1.39	1.35
4	L5	4457	PSU	C6-C5	3.46	1.39	1.35
4	L5	3920	PSU	C6-C5	3.45	1.39	1.35
84	S2	649	PSU	C6-C5	3.44	1.39	1.35
84	S2	966	PSU	C6-C5	3.44	1.39	1.35
4	L5	4552	PSU	C6-C5	3.43	1.39	1.35
4	L5	4523	A2M	O5'-C5'	-3.42	1.34	1.44
4	L5	398	A2M	O5'-C5'	-3.42	1.34	1.44
4	L5	4312	PSU	C6-C5	3.42	1.39	1.35
4	L5	1744	PSU	C6-C5	3.41	1.39	1.35
4	L5	4673	PSU	C6-C5	3.41	1.39	1.35
84	S2	681	PSU	C6-C5	3.41	1.39	1.35
84	S2	1056	PSU	C6-C5	3.41	1.39	1.35
84	S2	1383	A2M	O5'-C5'	-3.41	1.34	1.44
4	L5	3785	A2M	O5'-C5'	-3.40	1.34	1.44
4	L5	4576	PSU	C6-C5	3.39	1.39	1.35
84	S2	668	A2M	O5'-C5'	-3.39	1.34	1.44
4	L5	4973	PSU	C6-C5	3.36	1.39	1.35
4	L5	3830	A2M	O5'-C5'	-3.35	1.34	1.44
84	S2	166	A2M	O5'-C5'	-3.35	1.34	1.44
4	L5	2839	PSU	C6-C5	3.34	1.39	1.35
84	S2	99	A2M	O5'-C5'	-3.34	1.34	1.44
4	L5	400	A2M	O5'-C5'	-3.33	1.34	1.44
4	L5	4571	A2M	O5'-C5'	-3.33	1.34	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	L5	2787	A2M	O5'-C5'	-3.33	1.34	1.44
4	L5	1323	A2M	O5'-C5'	-3.33	1.34	1.44
4	L5	4220	6MZ	C2'-C1'	3.33	1.63	1.53
4	L5	3825	A2M	O5'-C5'	-3.32	1.34	1.44
4	L5	1534	A2M	O5'-C5'	-3.31	1.34	1.44
4	L5	3718	A2M	O5'-C5'	-3.31	1.34	1.44
4	L5	3818	UY1	C1'-C5	3.30	1.57	1.50
4	L5	4689	PSU	C6-C5	3.29	1.38	1.35
4	L5	1871	A2M	O5'-C5'	-3.29	1.34	1.44
4	L5	2815	A2M	O5'-C5'	-3.28	1.34	1.44
84	S2	27	A2M	O5'-C5'	-3.28	1.34	1.44
4	L5	1524	A2M	O5'-C5'	-3.27	1.34	1.44
84	S2	576	A2M	O5'-C5'	-3.27	1.34	1.44
84	S2	468	A2M	O5'-C5'	-3.26	1.34	1.44
84	S2	1031	A2M	O5'-C5'	-3.26	1.34	1.44
4	L5	2401	A2M	O5'-C5'	-3.25	1.34	1.44
4	L5	1677	PSU	C6-C5	3.22	1.38	1.35
4	L5	2363	A2M	O5'-C5'	-3.22	1.34	1.44
84	S2	484	A2M	O5'-C5'	-3.20	1.34	1.44
4	L5	3818	UY1	O2-C2	-3.20	1.16	1.23
4	L5	1326	A2M	O5'-C5'	-3.19	1.34	1.44
4	L5	4590	A2M	O5'-C5'	-3.19	1.34	1.44
4	L5	3867	A2M	O5'-C5'	-3.18	1.34	1.44
84	S2	1850	MA6	C6-N6	3.18	1.45	1.36
4	L5	4220	6MZ	C5-N7	-3.17	1.33	1.39
84	S2	1851	MA6	C6-N6	3.16	1.45	1.36
84	S2	1832	6MZ	C5-N7	-3.14	1.33	1.39
4	L5	4403	PSU	C6-C5	3.12	1.38	1.35
4	L5	4628	PSU	C6-C5	3.11	1.38	1.35
4	L5	4220	6MZ	C5-C4	-3.11	1.33	1.39
84	S2	159	A2M	O5'-C5'	-3.08	1.35	1.44
84	S2	1288	OMU	C5-C4	2.93	1.50	1.43
84	S2	1832	6MZ	C5-C4	-2.91	1.33	1.39
84	S2	1832	6MZ	C8-N9	-2.91	1.32	1.37
84	S2	799	OMU	C5-C4	2.89	1.50	1.43
84	S2	627	OMU	C5-C4	2.89	1.50	1.43
84	S2	428	OMU	C5-C4	2.89	1.50	1.43
4	L5	4220	6MZ	C8-N9	-2.89	1.32	1.37
4	L5	3925	OMU	C5-C4	2.88	1.49	1.43
84	S2	354	OMU	C5-C4	2.87	1.49	1.43
84	S2	172	OMU	C5-C4	2.86	1.49	1.43
4	L5	4227	OMU	C5-C4	2.85	1.49	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	S2	1326	OMU	C5-C4	2.84	1.49	1.43
84	S2	121	OMU	C5-C4	2.82	1.49	1.43
4	L5	4498	OMU	C5-C4	2.82	1.49	1.43
84	S2	1639	G7M	C2-N1	2.81	1.44	1.37
84	S2	1442	OMU	C5-C4	2.80	1.49	1.43
84	S2	121	OMU	C6-N1	2.80	1.44	1.38
4	L5	2837	OMU	C5-C4	2.79	1.49	1.43
4	L5	4306	OMU	C5-C4	2.79	1.49	1.43
84	S2	116	OMU	C5-C4	2.76	1.49	1.43
84	S2	1288	OMU	C6-N1	2.75	1.44	1.38
84	S2	799	OMU	C6-N1	2.75	1.44	1.38
4	L5	4620	OMU	C5-C4	2.74	1.49	1.43
84	S2	354	OMU	C6-N1	2.71	1.44	1.38
4	L5	4498	OMU	C6-N1	2.71	1.44	1.38
84	S2	1442	OMU	C6-N1	2.70	1.44	1.38
4	L5	2837	OMU	C6-N1	2.68	1.44	1.38
4	L5	4220	6MZ	O3'-C3'	2.67	1.49	1.43
84	S2	627	OMU	C6-N1	2.65	1.44	1.38
4	L5	4306	OMU	C6-N1	2.65	1.44	1.38
84	S2	1326	OMU	C6-N1	2.64	1.44	1.38
84	S2	116	OMU	C6-N1	2.64	1.44	1.38
4	L5	4227	OMU	C6-N1	2.63	1.44	1.38
4	L5	4530	UR3	C6-N1	2.62	1.44	1.38
4	L5	3925	OMU	C6-N1	2.59	1.44	1.38
84	S2	428	OMU	C6-N1	2.59	1.44	1.38
84	S2	172	OMU	C6-N1	2.58	1.44	1.38
4	L5	4620	OMU	C6-N1	2.55	1.44	1.38
4	L5	4530	UR3	O2-C2	-2.54	1.17	1.22
84	S2	1639	G7M	O6-C6	-2.47	1.18	1.23
84	S2	1639	G7M	C6-N1	2.43	1.43	1.38
84	S2	1850	MA6	C5-C4	-2.40	1.34	1.39
84	S2	1851	MA6	C5-C4	-2.37	1.34	1.39
4	L5	4530	UR3	C5-C4	2.29	1.49	1.43
4	L5	4530	UR3	C3U-N3	2.28	1.51	1.47
4	L5	3867	A2M	O4'-C4'	-2.22	1.40	1.45
4	L5	1524	A2M	O4'-C4'	-2.18	1.40	1.45
4	L5	1323	A2M	O4'-C4'	-2.16	1.40	1.45
4	L5	3818	UY1	C4-C5	2.11	1.50	1.44
84	S2	668	A2M	O4'-C4'	-2.10	1.40	1.45
84	S2	1639	G7M	C4-N9	-2.08	1.32	1.38
84	S2	1832	6MZ	C6-N1	-2.05	1.31	1.35
4	L5	1677	PSU	C4-C5	-2.03	1.38	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	L5	4293	PSU	C4-C5	-2.03	1.38	1.44
4	L5	3822	PSU	O4'-C1'	-2.02	1.41	1.43
4	L5	4220	6MZ	C6-N1	-2.00	1.31	1.35

All (705) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	1851	MA6	N1-C6-N6	-11.73	102.56	116.86
84	S2	1850	MA6	N1-C6-N6	-11.70	102.59	116.86
84	S2	1850	MA6	C5-C6-N6	7.78	137.64	125.33
84	S2	1639	G7M	C1'-N9-C4	7.75	149.37	126.49
84	S2	1851	MA6	C5-C6-N6	7.71	137.54	125.33
84	S2	1639	G7M	C1'-N9-C8	-7.67	100.85	126.74
4	L5	3925	OMU	C4-N3-C2	-5.89	119.30	126.61
84	S2	428	OMU	C4-N3-C2	-5.70	119.54	126.61
4	L5	4227	OMU	C4-N3-C2	-5.69	119.55	126.61
84	S2	172	OMU	C4-N3-C2	-5.65	119.60	126.61
84	S2	1326	OMU	C4-N3-C2	-5.63	119.62	126.61
4	L5	2837	OMU	C4-N3-C2	-5.62	119.63	126.61
84	S2	627	OMU	C4-N3-C2	-5.62	119.63	126.61
84	S2	354	OMU	C4-N3-C2	-5.60	119.67	126.61
4	L5	4498	OMU	C4-N3-C2	-5.59	119.67	126.61
84	S2	1288	OMU	C4-N3-C2	-5.56	119.70	126.61
84	S2	1832	6MZ	N1-C2-N3	-5.56	120.17	128.58
84	S2	1850	MA6	N1-C2-N3	-5.56	120.17	128.58
84	S2	1851	MA6	N1-C2-N3	-5.52	120.22	128.58
84	S2	1442	OMU	C4-N3-C2	-5.49	119.80	126.61
4	L5	4306	OMU	C4-N3-C2	-5.49	119.80	126.61
84	S2	1851	MA6	N9-C8-N7	-5.48	106.16	113.94
4	L5	4530	UR3	C4-N3-C2	-5.47	120.18	124.58
4	L5	3637	PSU	N1-C2-N3	5.46	120.93	115.17
4	L5	4220	6MZ	N1-C2-N3	-5.44	120.35	128.58
84	S2	1850	MA6	N9-C8-N7	-5.43	106.23	113.94
4	L5	4620	OMU	C4-N3-C2	-5.43	119.88	126.61
84	S2	799	OMU	C4-N3-C2	-5.41	119.89	126.61
84	S2	121	OMU	C4-N3-C2	-5.29	120.05	126.61
84	S2	1248	B8N	C5-C4-N3	5.15	125.50	116.15
4	L5	4636	PSU	C4-N3-C2	-5.15	119.28	126.37
84	S2	116	OMU	C4-N3-C2	-5.11	120.26	126.61
4	L5	4442	PSU	N1-C2-N3	5.03	120.47	115.17
4	L5	4442	PSU	C4-N3-C2	-5.01	119.47	126.37
4	L5	4312	PSU	C4-N3-C2	-5.00	119.48	126.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	L5	2632	PSU	C4-N3-C2	-5.00	119.49	126.37
4	L5	5010	PSU	C4-N3-C2	-4.96	119.54	126.37
4	L5	3637	PSU	C4-N3-C2	-4.96	119.54	126.37
4	L5	4296	PSU	C4-N3-C2	-4.95	119.55	126.37
4	L5	1860	PSU	C4-N3-C2	-4.95	119.56	126.37
4	L5	1536	PSU	C4-N3-C2	-4.95	119.56	126.37
84	S2	649	PSU	C4-N3-C2	-4.94	119.56	126.37
4	L5	1536	PSU	N1-C2-N3	4.94	120.38	115.17
4	L5	4636	PSU	N1-C2-N3	4.94	120.38	115.17
4	L5	3818	UY1	C4-N3-C2	-4.92	119.59	126.37
4	L5	4521	PSU	C4-N3-C2	-4.91	119.60	126.37
84	S2	863	PSU	C4-N3-C2	-4.91	119.60	126.37
4	L5	4293	PSU	C4-N3-C2	-4.91	119.60	126.37
4	L5	4299	PSU	C4-N3-C2	-4.91	119.61	126.37
4	L5	2632	PSU	N1-C2-N3	4.91	120.34	115.17
4	L5	2839	PSU	C4-N3-C2	-4.90	119.62	126.37
4	L5	4431	PSU	N1-C2-N3	4.89	120.33	115.17
4	L5	1677	PSU	C4-N3-C2	-4.88	119.65	126.37
4	L5	4500	PSU	C4-N3-C2	-4.87	119.66	126.37
84	S2	1174	PSU	C4-N3-C2	-4.86	119.67	126.37
4	L5	3884	PSU	C4-N3-C2	-4.86	119.67	126.37
4	L5	3920	PSU	C4-N3-C2	-4.86	119.67	126.37
84	S2	1056	PSU	C4-N3-C2	-4.86	119.68	126.37
84	S2	814	PSU	C4-N3-C2	-4.85	119.69	126.37
4	L5	4500	PSU	N1-C2-N3	4.85	120.28	115.17
4	L5	3639	PSU	C4-N3-C2	-4.85	119.69	126.37
4	L5	3844	PSU	C4-N3-C2	-4.84	119.70	126.37
4	L5	4457	PSU	C4-N3-C2	-4.84	119.70	126.37
4	L5	4299	PSU	N1-C2-N3	4.84	120.28	115.17
4	L5	3822	PSU	C4-N3-C2	-4.84	119.71	126.37
4	L5	4296	PSU	N1-C2-N3	4.84	120.27	115.17
4	L5	1677	PSU	N1-C2-N3	4.83	120.27	115.17
84	S2	1045	PSU	C4-N3-C2	-4.82	119.73	126.37
84	S2	866	PSU	C4-N3-C2	-4.82	119.73	126.37
4	L5	4353	PSU	C4-N3-C2	-4.81	119.74	126.37
84	S2	1004	PSU	C4-N3-C2	-4.81	119.74	126.37
84	S2	686	PSU	C4-N3-C2	-4.81	119.75	126.37
84	S2	1081	PSU	C4-N3-C2	-4.80	119.75	126.37
4	L5	4532	PSU	N1-C2-N3	4.80	120.23	115.17
4	L5	1744	PSU	C4-N3-C2	-4.80	119.75	126.37
84	S2	109	PSU	C4-N3-C2	-4.80	119.76	126.37
84	S2	651	PSU	C4-N3-C2	-4.80	119.76	126.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	866	PSU	N1-C2-N3	4.79	120.22	115.17
84	S2	1832	6MZ	C5-C4-N3	-4.79	120.12	126.72
4	L5	1862	PSU	C4-N3-C2	-4.79	119.77	126.37
6	L8	55	PSU	C4-N3-C2	-4.79	119.78	126.37
6	L8	55	PSU	N1-C2-N3	4.79	120.22	115.17
4	L5	3695	PSU	C4-N3-C2	-4.79	119.78	126.37
4	L5	4431	PSU	C4-N3-C2	-4.79	119.78	126.37
4	L5	4972	PSU	C4-N3-C2	-4.79	119.78	126.37
84	S2	1367	PSU	N1-C2-N3	4.78	120.21	115.17
4	L5	1792	PSU	N1-C2-N3	4.78	120.21	115.17
4	L5	4493	PSU	N1-C2-N3	4.78	120.21	115.17
4	L5	4493	PSU	C4-N3-C2	-4.78	119.78	126.37
4	L5	3844	PSU	N1-C2-N3	4.77	120.20	115.17
84	S2	801	PSU	N1-C2-N3	4.77	120.20	115.17
4	L5	4532	PSU	C4-N3-C2	-4.76	119.81	126.37
4	L5	1792	PSU	C4-N3-C2	-4.76	119.82	126.37
4	L5	5001	PSU	C4-N3-C2	-4.76	119.82	126.37
4	L5	1782	PSU	N1-C2-N3	4.76	120.18	115.17
4	L5	3822	PSU	N1-C2-N3	4.76	120.18	115.17
4	L5	3639	PSU	N1-C2-N3	4.75	120.18	115.17
4	L5	4457	PSU	N1-C2-N3	4.75	120.18	115.17
84	S2	651	PSU	N1-C2-N3	4.75	120.18	115.17
4	L5	4220	6MZ	N9-C8-N7	-4.75	107.20	113.94
4	L5	4689	PSU	N1-C2-N3	4.75	120.17	115.17
4	L5	4471	PSU	N1-C2-N3	4.74	120.17	115.17
4	L5	1782	PSU	C4-N3-C2	-4.74	119.84	126.37
4	L5	4361	PSU	C4-N3-C2	-4.74	119.84	126.37
4	L5	4673	PSU	C4-N3-C2	-4.74	119.84	126.37
84	S2	1244	PSU	C4-N3-C2	-4.74	119.84	126.37
84	S2	105	PSU	N1-C2-N3	4.74	120.17	115.17
84	S2	681	PSU	N1-C2-N3	4.74	120.17	115.17
4	L5	1683	PSU	C4-N3-C2	-4.74	119.85	126.37
84	S2	681	PSU	C4-N3-C2	-4.74	119.85	126.37
4	L5	4293	PSU	N1-C2-N3	4.73	120.16	115.17
84	S2	966	PSU	C4-N3-C2	-4.72	119.86	126.37
4	L5	1683	PSU	N1-C2-N3	4.72	120.14	115.17
84	S2	1232	PSU	C4-N3-C2	-4.72	119.87	126.37
84	S2	109	PSU	N1-C2-N3	4.72	120.14	115.17
4	L5	4353	PSU	N1-C2-N3	4.72	120.14	115.17
84	S2	686	PSU	N1-C2-N3	4.71	120.14	115.17
84	S2	1232	PSU	N1-C2-N3	4.71	120.14	115.17
84	S2	1045	PSU	N1-C2-N3	4.71	120.14	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	L5	2839	PSU	N1-C2-N3	4.71	120.14	115.17
4	L5	4220	6MZ	C5-C4-N3	-4.70	120.24	126.72
4	L5	1862	PSU	N1-C2-N3	4.70	120.12	115.17
4	L5	1860	PSU	N1-C2-N3	4.69	120.12	115.17
84	S2	1081	PSU	N1-C2-N3	4.69	120.11	115.17
4	L5	5010	PSU	N1-C2-N3	4.69	120.11	115.17
84	S2	105	PSU	C4-N3-C2	-4.68	119.92	126.37
4	L5	3920	PSU	N1-C2-N3	4.68	120.11	115.17
84	S2	1056	PSU	N1-C2-N3	4.68	120.10	115.17
84	S2	406	PSU	N1-C2-N3	4.68	120.10	115.17
84	S2	1177	PSU	C4-N3-C2	-4.68	119.93	126.37
84	S2	1367	PSU	C4-N3-C2	-4.68	119.93	126.37
84	S2	1244	PSU	N1-C2-N3	4.68	120.10	115.17
84	S2	1177	PSU	N1-C2-N3	4.68	120.10	115.17
4	L5	4552	PSU	C4-N3-C2	-4.67	119.93	126.37
4	L5	4973	PSU	C4-N3-C2	-4.67	119.94	126.37
4	L5	3695	PSU	N1-C2-N3	4.67	120.09	115.17
4	L5	4972	PSU	N1-C2-N3	4.67	120.09	115.17
84	S2	93	PSU	N1-C2-N3	4.67	120.09	115.17
84	S2	649	PSU	N1-C2-N3	4.67	120.09	115.17
4	L5	4552	PSU	N1-C2-N3	4.66	120.09	115.17
4	L5	4628	PSU	C4-N3-C2	-4.66	119.95	126.37
84	S2	801	PSU	C4-N3-C2	-4.66	119.95	126.37
4	L5	1744	PSU	N1-C2-N3	4.66	120.08	115.17
84	S2	814	PSU	N1-C2-N3	4.66	120.08	115.17
4	L5	4579	PSU	C4-N3-C2	-4.66	119.96	126.37
84	S2	93	PSU	C4-N3-C2	-4.66	119.96	126.37
84	S2	1046	PSU	C4-N3-C2	-4.65	119.96	126.37
4	L5	4403	PSU	C4-N3-C2	-4.65	119.97	126.37
4	L5	4576	PSU	N1-C2-N3	4.64	120.07	115.17
4	L5	1781	PSU	C4-N3-C2	-4.64	119.98	126.37
84	S2	966	PSU	N1-C2-N3	4.64	120.06	115.17
4	L5	4312	PSU	N1-C2-N3	4.64	120.06	115.17
84	S2	1851	MA6	C5-C4-N3	-4.63	120.34	126.72
84	S2	863	PSU	N1-C2-N3	4.63	120.05	115.17
4	L5	4673	PSU	N1-C2-N3	4.63	120.05	115.17
4	L5	4628	PSU	N1-C2-N3	4.62	120.05	115.17
4	L5	1781	PSU	N1-C2-N3	4.62	120.04	115.17
6	L8	69	PSU	C4-N3-C2	-4.61	120.02	126.37
4	L5	4576	PSU	C4-N3-C2	-4.61	120.02	126.37
4	L5	1582	PSU	N1-C2-N3	4.61	120.03	115.17
4	L5	4973	PSU	N1-C2-N3	4.59	120.01	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	1174	PSU	N1-C2-N3	4.59	120.01	115.17
84	S2	406	PSU	C4-N3-C2	-4.58	120.06	126.37
4	L5	3884	PSU	N1-C2-N3	4.58	120.00	115.17
4	L5	3853	PSU	C4-N3-C2	-4.58	120.06	126.37
4	L5	4361	PSU	N1-C2-N3	4.56	119.98	115.17
4	L5	4471	PSU	C4-N3-C2	-4.55	120.10	126.37
84	S2	1046	PSU	N1-C2-N3	4.55	119.97	115.17
4	L5	4521	PSU	N1-C2-N3	4.55	119.97	115.17
4	L5	3851	PSU	C4-N3-C2	-4.55	120.10	126.37
4	L5	5001	PSU	N1-C2-N3	4.55	119.96	115.17
4	L5	4579	PSU	N1-C2-N3	4.54	119.96	115.17
6	L8	69	PSU	N1-C2-N3	4.54	119.95	115.17
84	S2	1832	6MZ	N9-C8-N7	-4.53	107.50	113.94
84	S2	1004	PSU	N1-C2-N3	4.53	119.95	115.17
4	L5	3851	PSU	N1-C2-N3	4.53	119.94	115.17
4	L5	3853	PSU	N1-C2-N3	4.52	119.93	115.17
84	S2	1248	B8N	C4-N3-C2	-4.51	120.07	125.62
4	L5	4689	PSU	C4-N3-C2	-4.50	120.18	126.37
84	S2	1639	G7M	C2-N3-C4	4.48	120.01	112.30
4	L5	3818	UY1	N1-C2-N3	4.42	119.83	115.17
84	S2	1850	MA6	C5-C4-N3	-4.41	120.64	126.72
4	L5	4403	PSU	N1-C2-N3	4.40	119.81	115.17
84	S2	1383	A2M	C3'-C2'-C1'	-4.31	94.56	102.81
4	L5	1582	PSU	C4-N3-C2	-4.28	120.48	126.37
84	S2	1850	MA6	C4-N9-C8	4.24	110.19	105.74
84	S2	1851	MA6	C4-N9-C8	4.22	110.17	105.74
4	L5	3925	OMU	N3-C2-N1	4.11	120.24	114.89
84	S2	354	OMU	N3-C2-N1	4.10	120.22	114.89
84	S2	121	OMU	N3-C2-N1	4.04	120.16	114.89
4	L5	4498	OMU	N3-C2-N1	4.02	120.13	114.89
84	S2	1639	G7M	C5-C6-N1	3.97	120.05	111.84
84	S2	1639	G7M	C5-C4-N3	-3.96	120.66	128.15
4	L5	4227	OMU	N3-C2-N1	3.93	120.00	114.89
84	S2	428	OMU	N3-C2-N1	3.91	119.98	114.89
84	S2	799	OMU	N3-C2-N1	3.90	119.96	114.89
4	L5	2837	OMU	N3-C2-N1	3.88	119.95	114.89
84	S2	1288	OMU	N3-C2-N1	3.87	119.93	114.89
84	S2	172	OMU	N3-C2-N1	3.85	119.91	114.89
4	L5	4620	OMU	N3-C2-N1	3.83	119.87	114.89
84	S2	1248	B8N	C1'-C5-C4	3.81	123.39	117.61
4	L5	4306	OMU	N3-C2-N1	3.80	119.83	114.89
84	S2	1442	OMU	N3-C2-N1	3.80	119.83	114.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	1326	OMU	N3-C2-N1	3.75	119.77	114.89
84	S2	116	OMU	N3-C2-N1	3.74	119.76	114.89
84	S2	1851	MA6	C4-C5-C6	3.72	119.76	115.91
4	L5	4523	A2M	C3'-C2'-C1'	-3.71	95.70	102.81
4	L5	3925	OMU	C5-C4-N3	3.71	120.00	114.80
84	S2	627	OMU	N3-C2-N1	3.69	119.69	114.89
84	S2	627	OMU	C5-C4-N3	3.68	119.95	114.80
4	L5	398	A2M	C3'-C2'-C1'	-3.64	95.83	102.81
84	S2	1326	OMU	C5-C4-N3	3.63	119.89	114.80
4	L5	2837	OMU	C5-C4-N3	3.61	119.86	114.80
4	L5	4227	OMU	C5-C4-N3	3.60	119.84	114.80
84	S2	1850	MA6	C4-C5-C6	3.59	119.62	115.91
84	S2	1383	A2M	O3'-C3'-C2'	3.59	121.22	111.19
4	L5	4220	6MZ	C9-N6-C6	-3.58	119.53	122.85
4	L5	4306	OMU	C5-C4-N3	3.57	119.81	114.80
4	L5	4530	UR3	C5-C4-N3	3.53	119.69	115.04
4	L5	4620	OMU	C5-C4-N3	3.53	119.74	114.80
84	S2	1442	OMU	C5-C4-N3	3.53	119.74	114.80
84	S2	1248	B8N	N3-C2-N1	3.52	121.02	116.72
84	S2	428	OMU	C5-C4-N3	3.51	119.71	114.80
84	S2	354	OMU	C5-C4-N3	3.50	119.71	114.80
4	L5	4498	OMU	C5-C4-N3	3.50	119.70	114.80
84	S2	1288	OMU	C5-C4-N3	3.49	119.69	114.80
84	S2	172	OMU	C5-C4-N3	3.49	119.69	114.80
84	S2	1850	MA6	C2-N1-C6	3.48	120.34	111.83
84	S2	799	OMU	C5-C4-N3	3.46	119.65	114.80
84	S2	1851	MA6	N3-C4-N9	3.46	133.05	127.17
4	L5	3830	A2M	C3'-C2'-C1'	-3.46	96.19	102.81
4	L5	3785	A2M	C4'-O4'-C1'	-3.44	101.87	109.47
4	L5	398	A2M	O3'-C3'-C2'	3.44	120.81	111.19
84	S2	166	A2M	O3'-C3'-C2'	3.43	120.79	111.19
84	S2	1851	MA6	C2-N1-C6	3.42	120.18	111.83
4	L5	1534	A2M	C3'-C2'-C1'	-3.39	96.33	102.81
4	L5	3818	UY1	C6-C5-C4	3.37	120.45	118.17
84	S2	1832	6MZ	C2-N3-C4	3.37	120.06	111.83
84	S2	576	A2M	O3'-C3'-C2'	3.36	120.60	111.19
4	L5	1536	PSU	O2-C2-N1	-3.36	119.32	122.79
84	S2	116	OMU	C5-C4-N3	3.33	119.47	114.80
84	S2	121	OMU	C5-C4-N3	3.32	119.45	114.80
84	S2	1639	G7M	O6-C6-C5	-3.32	120.61	128.01
4	L5	4220	6MZ	C2-N3-C4	3.32	119.93	111.83
84	S2	166	A2M	C3'-C2'-C1'	-3.30	96.48	102.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	1639	G7M	CN7-N7-C5	3.30	130.91	126.80
84	S2	1851	MA6	C5-N7-C8	3.29	108.63	103.45
4	L5	3825	A2M	O3'-C3'-C2'	3.26	120.32	111.19
4	L5	4571	A2M	O3'-C3'-C2'	3.26	120.31	111.19
84	S2	484	A2M	O3'-C3'-C2'	3.25	120.27	111.19
84	S2	1832	6MZ	C4-C5-C6	3.25	119.48	116.78
4	L5	1524	A2M	O3'-C3'-C2'	3.24	120.26	111.19
4	L5	1323	A2M	C2'-C1'-N9	3.23	119.07	113.75
84	S2	1850	MA6	N3-C4-N9	3.23	132.66	127.17
84	S2	1031	A2M	C3'-C2'-C1'	-3.22	96.63	102.81
4	L5	2787	A2M	O3'-C3'-C2'	3.22	120.20	111.19
4	L5	3785	A2M	C4-N9-C1'	-3.22	119.11	126.63
4	L5	4220	6MZ	N3-C4-N9	3.21	132.63	127.17
4	L5	4590	A2M	C3'-C2'-C1'	-3.21	96.66	102.81
4	L5	4220	6MZ	C4-N9-C8	3.21	109.11	105.74
84	S2	1832	6MZ	N3-C4-N9	3.21	132.62	127.17
84	S2	1850	MA6	C5-N7-C8	3.20	108.47	103.45
84	S2	166	A2M	C4-N9-C1'	-3.19	119.17	126.63
84	S2	159	A2M	O3'-C3'-C2'	3.19	120.11	111.19
84	S2	1639	G7M	N9-C4-N3	3.19	132.33	125.95
84	S2	1851	MA6	C2-N3-C4	3.18	119.61	111.83
4	L5	2401	A2M	O3'-C3'-C2'	3.18	120.08	111.19
4	L5	4590	A2M	O3'-C3'-C2'	3.17	120.06	111.19
4	L5	3718	A2M	C3'-C2'-C1'	-3.17	96.75	102.81
84	S2	1383	A2M	C4-N9-C1'	-3.16	119.24	126.63
4	L5	4220	6MZ	C4-C5-C6	3.16	119.41	116.78
84	S2	1031	A2M	O3'-C3'-C2'	3.16	120.03	111.19
4	L5	3830	A2M	O3'-C3'-C2'	3.16	120.02	111.19
4	L5	4689	PSU	C6-N1-C2	-3.15	119.77	122.69
4	L5	400	A2M	O3'-C3'-C2'	3.14	119.98	111.19
4	L5	1871	A2M	C3'-C2'-C1'	-3.13	96.82	102.81
84	S2	1850	MA6	C2-N3-C4	3.13	119.47	111.83
4	L5	4590	A2M	C4-N9-C1'	-3.12	119.32	126.63
84	S2	1832	6MZ	C5-N7-C8	3.10	108.32	103.45
84	S2	99	A2M	O3'-C3'-C2'	3.09	119.83	111.19
4	L5	3718	A2M	O3'-C3'-C2'	3.08	119.80	111.19
4	L5	3830	A2M	C4-N9-C1'	-3.07	119.44	126.63
84	S2	468	A2M	O3'-C3'-C2'	3.06	119.75	111.19
4	L5	2861	OMC	C1'-N1-C2	3.05	125.18	118.44
84	S2	99	A2M	C3'-C2'-C1'	-3.05	96.97	102.81
84	S2	576	A2M	C3'-C2'-C1'	-3.04	96.99	102.81
4	L5	2363	A2M	C3'-C2'-C1'	-3.03	97.00	102.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	L5	4220	6MZ	C5-N7-C8	3.03	108.21	103.45
4	L5	3818	UY1	C6-N1-C2	-3.03	119.88	122.69
4	L5	1683	PSU	O2-C2-N1	-3.03	119.67	122.79
4	L5	4689	PSU	O2-C2-N1	-3.02	119.67	122.79
4	L5	3808	OMC	C1'-N1-C2	3.01	125.09	118.44
4	L5	2401	A2M	C4-N9-C1'	-3.01	119.60	126.63
84	S2	1442	OMU	O4-C4-C5	-3.01	119.97	125.16
84	S2	627	OMU	O4-C4-C5	-3.01	119.98	125.16
4	L5	2837	OMU	O4-C4-C5	-3.00	119.99	125.16
4	L5	4571	A2M	C4-N9-C1'	-2.99	119.64	126.63
4	L5	1326	A2M	O3'-C3'-C2'	2.98	119.52	111.19
84	S2	27	A2M	O3'-C3'-C2'	2.98	119.52	111.19
84	S2	668	A2M	O4'-C1'-C2'	2.96	111.69	106.59
84	S2	1326	OMU	O4-C4-C5	-2.96	120.05	125.16
84	S2	1639	G7M	C2-N1-C6	-2.96	119.74	125.11
84	S2	27	A2M	C3'-C2'-C1'	-2.96	97.14	102.81
84	S2	172	OMU	O4-C4-C5	-2.95	120.07	125.16
4	L5	4227	OMU	O4-C4-C5	-2.94	120.09	125.16
84	S2	668	A2M	C4-N9-C1'	-2.94	119.76	126.63
84	S2	428	OMU	O4-C4-C5	-2.93	120.11	125.16
84	S2	1832	6MZ	C4-N9-C8	2.93	108.81	105.74
4	L5	4493	PSU	O2-C2-N1	-2.92	119.78	122.79
4	L5	3822	PSU	O2-C2-N1	-2.92	119.78	122.79
4	L5	1323	A2M	C4-N9-C1'	-2.92	119.80	126.63
4	L5	4523	A2M	C4-N9-C1'	-2.92	119.81	126.63
6	L8	55	PSU	O2-C2-N1	-2.92	119.78	122.79
4	L5	4628	PSU	O2-C2-N1	-2.91	119.79	122.79
84	S2	668	A2M	O3'-C3'-C2'	2.90	119.32	111.19
4	L5	2815	A2M	O3'-C3'-C2'	2.90	119.29	111.19
4	L5	4523	A2M	O3'-C3'-C2'	2.90	119.29	111.19
4	L5	3785	A2M	O3'-C3'-C2'	2.90	119.29	111.19
4	L5	3637	PSU	C6-N1-C2	-2.89	120.00	122.69
84	S2	1031	A2M	C4-N9-C1'	-2.89	119.86	126.63
4	L5	398	A2M	C4-N9-C1'	-2.89	119.87	126.63
4	L5	4442	PSU	O2-C2-N1	-2.89	119.81	122.79
84	S2	166	A2M	C1'-N9-C8	2.89	133.50	127.09
84	S2	159	A2M	C3'-C2'-C1'	-2.88	97.29	102.81
4	L5	2787	A2M	O4'-C1'-C2'	2.88	111.54	106.59
4	L5	1782	PSU	O2-C2-N1	-2.87	119.83	122.79
84	S2	109	PSU	O2-C2-N1	-2.87	119.83	122.79
4	L5	3925	OMU	O4-C4-C5	-2.86	120.23	125.16
84	S2	1177	PSU	O2-C2-N1	-2.86	119.84	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	27	A2M	C4-N9-C1'	-2.86	119.95	126.63
4	L5	4403	PSU	O2-C2-N1	-2.85	119.84	122.79
4	L5	4590	A2M	C1'-N9-C8	2.85	133.43	127.09
84	S2	1367	PSU	O2-C2-N1	-2.85	119.85	122.79
4	L5	3825	A2M	C3'-C2'-C1'	-2.85	97.36	102.81
4	L5	4673	PSU	O2-C2-N1	-2.85	119.85	122.79
4	L5	1871	A2M	O3'-C3'-C2'	2.84	119.15	111.19
4	L5	1326	A2M	C2'-C1'-N9	2.84	118.43	113.75
84	S2	1383	A2M	C1'-N9-C8	2.83	133.39	127.09
4	L5	4636	PSU	O2-C2-N1	-2.83	119.87	122.79
84	S2	799	OMU	O4-C4-C5	-2.83	120.28	125.16
4	L5	4431	PSU	O2-C2-N1	-2.83	119.87	122.79
84	S2	866	PSU	O2-C2-N1	-2.83	119.87	122.79
4	L5	1871	A2M	C4-N9-C1'	-2.82	120.03	126.63
4	L5	3718	A2M	C4-N9-C1'	-2.82	120.03	126.63
4	L5	4498	OMU	O4-C4-C5	-2.82	120.30	125.16
4	L5	2401	A2M	C1'-N9-C8	2.82	133.35	127.09
84	S2	1288	OMU	O4-C4-C5	-2.81	120.31	125.16
4	L5	4620	OMU	O4-C4-C5	-2.81	120.31	125.16
84	S2	99	A2M	C4-N9-C1'	-2.81	120.06	126.63
4	L5	4532	PSU	O2-C2-N1	-2.81	119.89	122.79
4	L5	4500	PSU	O2-C2-N1	-2.81	119.89	122.79
4	L5	3785	A2M	C1'-N9-C8	2.81	133.32	127.09
4	L5	3830	A2M	C1'-N9-C8	2.80	133.31	127.09
84	S2	681	PSU	O2-C2-N1	-2.80	119.90	122.79
84	S2	121	OMU	O4-C4-C5	-2.80	120.33	125.16
4	L5	1323	A2M	O4'-C1'-C2'	2.80	111.41	106.59
4	L5	4306	OMU	O4-C4-C5	-2.80	120.34	125.16
84	S2	801	PSU	O2-C2-N1	-2.78	119.92	122.79
4	L5	3825	A2M	C4-N9-C1'	-2.78	120.14	126.63
84	S2	468	A2M	C4-N9-C1'	-2.77	120.14	126.63
4	L5	4353	PSU	O2-C2-N1	-2.77	119.93	122.79
4	L5	3844	PSU	O2-C2-N1	-2.77	119.93	122.79
4	L5	3867	A2M	O3'-C3'-C2'	2.77	118.93	111.19
84	S2	105	PSU	O2-C2-N1	-2.77	119.93	122.79
4	L5	1534	A2M	O3'-C3'-C2'	2.77	118.93	111.19
4	L5	4299	PSU	O2-C2-N1	-2.77	119.94	122.79
4	L5	1677	PSU	O2-C2-N1	-2.76	119.94	122.79
4	L5	1534	A2M	C4-N9-C1'	-2.76	120.17	126.63
4	L5	4576	PSU	O2-C2-N1	-2.76	119.95	122.79
6	L8	69	PSU	O2-C2-N1	-2.75	119.95	122.79
4	L5	4972	PSU	O2-C2-N1	-2.75	119.95	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	L5	4457	PSU	O2-C2-N1	-2.74	119.96	122.79
4	L5	3884	PSU	O2-C2-N1	-2.74	119.96	122.79
84	S2	354	OMU	O4-C4-C5	-2.74	120.44	125.16
84	S2	406	PSU	O2-C2-N1	-2.74	119.96	122.79
4	L5	3718	A2M	C1'-N9-C8	2.74	133.17	127.09
4	L5	4296	PSU	O2-C2-N1	-2.74	119.97	122.79
4	L5	398	A2M	C1'-N9-C8	2.74	133.17	127.09
84	S2	468	A2M	C3'-C2'-C1'	-2.73	97.57	102.81
4	L5	3785	A2M	C3'-C2'-C1'	-2.73	97.57	102.81
4	L5	1323	A2M	C1'-N9-C8	2.72	133.14	127.09
84	S2	159	A2M	C4-N9-C1'	-2.72	120.26	126.63
4	L5	4471	PSU	O2-C2-N1	-2.72	119.98	122.79
84	S2	651	PSU	O2-C2-N1	-2.72	119.98	122.79
84	S2	1056	PSU	O2-C2-N1	-2.72	119.98	122.79
4	L5	4571	A2M	C1'-N9-C8	2.72	133.13	127.09
4	L5	4571	A2M	C3'-C2'-C1'	-2.72	97.60	102.81
84	S2	1639	G7M	CN7-N7-C8	-2.72	120.68	124.79
84	S2	1045	PSU	O2-C2-N1	-2.71	119.99	122.79
84	S2	814	PSU	O2-C2-N1	-2.71	119.99	122.79
84	S2	116	OMU	O4-C4-C5	-2.71	120.48	125.16
84	S2	1031	A2M	C1'-N9-C8	2.71	133.11	127.09
4	L5	4521	PSU	O2-C2-N1	-2.71	120.00	122.79
84	S2	966	PSU	O2-C2-N1	-2.70	120.00	122.79
4	L5	4523	A2M	C1'-N9-C8	2.70	133.08	127.09
4	L5	2839	PSU	O2-C2-N1	-2.70	120.01	122.79
4	L5	1524	A2M	O4'-C1'-C2'	2.70	111.23	106.59
84	S2	668	A2M	C1'-N9-C8	2.70	133.08	127.09
84	S2	1248	B8N	O4-C4-N3	-2.69	115.62	119.99
4	L5	2363	A2M	O3'-C3'-C2'	2.69	118.72	111.19
4	L5	4552	PSU	O2-C2-N1	-2.69	120.01	122.79
4	L5	1323	A2M	O3'-C3'-C2'	2.69	118.71	111.19
4	L5	1677	PSU	C6-C5-C4	2.69	119.99	118.17
4	L5	3920	PSU	O2-C2-N1	-2.69	120.02	122.79
4	L5	1860	PSU	O2-C2-N1	-2.68	120.02	122.79
84	S2	1244	PSU	O2-C2-N1	-2.68	120.02	122.79
84	S2	686	PSU	O2-C2-N1	-2.68	120.02	122.79
84	S2	1174	PSU	O2-C2-N1	-2.68	120.02	122.79
4	L5	1582	PSU	C6-N1-C2	-2.68	120.20	122.69
4	L5	4973	PSU	O2-C2-N1	-2.68	120.03	122.79
4	L5	1534	A2M	C1'-N9-C8	2.68	133.03	127.09
4	L5	5010	PSU	O2-C2-N1	-2.66	120.04	122.79
84	S2	99	A2M	C1'-N9-C8	2.66	132.99	127.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	576	A2M	C4-N9-C1'	-2.65	120.43	126.63
84	S2	1232	PSU	O2-C2-N1	-2.65	120.05	122.79
4	L5	1862	PSU	O2-C2-N1	-2.65	120.06	122.79
4	L5	1781	PSU	O2-C2-N1	-2.64	120.07	122.79
4	L5	4576	PSU	C6-N1-C2	-2.64	120.24	122.69
4	L5	1744	PSU	O2-C2-N1	-2.64	120.07	122.79
4	L5	400	A2M	C3'-C2'-C1'	-2.64	97.76	102.81
4	L5	3867	A2M	C2'-C1'-N9	2.63	118.08	113.75
84	S2	406	PSU	C6-N1-C2	-2.63	120.25	122.69
4	L5	2363	A2M	C4-N9-C1'	-2.63	120.49	126.63
4	L5	1871	A2M	C1'-N9-C8	2.63	132.93	127.09
4	L5	4579	PSU	O2-C2-N1	-2.63	120.08	122.79
84	S2	93	PSU	O2-C2-N1	-2.63	120.08	122.79
4	L5	400	A2M	C4-N9-C1'	-2.62	120.49	126.63
4	L5	1582	PSU	O2-C2-N1	-2.62	120.08	122.79
4	L5	4361	PSU	O2-C2-N1	-2.62	120.09	122.79
84	S2	159	A2M	C1'-N9-C8	2.61	132.89	127.09
4	L5	2632	PSU	C6-C5-C4	2.61	119.94	118.17
84	S2	27	A2M	C1'-N9-C8	2.61	132.88	127.09
84	S2	468	A2M	C1'-N9-C8	2.61	132.88	127.09
4	L5	1792	PSU	O2-C2-N1	-2.61	120.10	122.79
84	S2	484	A2M	C4-N9-C1'	-2.60	120.54	126.63
4	L5	3639	PSU	O2-C2-N1	-2.60	120.11	122.79
4	L5	3825	A2M	C1'-N9-C8	2.60	132.86	127.09
4	L5	3637	PSU	O2-C2-N1	-2.59	120.11	122.79
4	L5	3867	A2M	C4-N9-C1'	-2.59	120.57	126.63
4	L5	2632	PSU	O2-C2-N1	-2.59	120.12	122.79
4	L5	4471	PSU	C6-N1-C2	-2.59	120.29	122.69
4	L5	4293	PSU	O2-C2-N1	-2.58	120.13	122.79
4	L5	3853	PSU	O2-C2-N1	-2.58	120.13	122.79
4	L5	4636	PSU	C6-C5-C4	2.57	119.91	118.17
4	L5	4431	PSU	C6-N1-C2	-2.56	120.31	122.69
84	S2	1046	PSU	O2-C2-N1	-2.56	120.15	122.79
84	S2	801	PSU	C6-N1-C2	-2.56	120.32	122.69
84	S2	1367	PSU	C6-N1-C2	-2.55	120.32	122.69
4	L5	1677	PSU	C6-N1-C2	-2.55	120.32	122.69
4	L5	3851	PSU	O2-C2-N1	-2.55	120.16	122.79
84	S2	484	A2M	C1'-N9-C8	2.55	132.74	127.09
84	S2	576	A2M	C1'-N9-C8	2.54	132.74	127.09
84	S2	681	PSU	C6-N1-C2	-2.54	120.33	122.69
4	L5	4628	PSU	C6-N1-C2	-2.54	120.33	122.69
84	S2	1004	PSU	O2-C2-N1	-2.54	120.17	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	484	A2M	O4'-C4'-C3'	2.53	110.18	105.15
4	L5	2363	A2M	C1'-N9-C8	2.53	132.71	127.09
4	L5	4973	PSU	C6-N1-C2	-2.53	120.34	122.69
4	L5	1782	PSU	C6-N1-C2	-2.52	120.35	122.69
4	L5	4442	PSU	O4'-C1'-C2'	2.52	108.63	105.15
6	L8	55	PSU	C6-N1-C2	-2.52	120.36	122.69
4	L5	1683	PSU	C6-N1-C2	-2.51	120.36	122.69
4	L5	4312	PSU	O2-C2-N1	-2.51	120.20	122.79
4	L5	2351	OMC	C1'-N1-C2	2.51	123.98	118.44
4	L5	1536	PSU	C6-N1-C2	-2.50	120.37	122.69
4	L5	4579	PSU	C6-N1-C2	-2.50	120.37	122.69
4	L5	1326	A2M	C4-N9-C1'	-2.49	120.80	126.63
4	L5	4500	PSU	C6-N1-C2	-2.49	120.38	122.69
4	L5	4673	PSU	C6-N1-C2	-2.49	120.38	122.69
4	L5	400	A2M	C1'-N9-C8	2.48	132.61	127.09
4	L5	3818	UY1	O2-C2-N1	-2.48	120.23	122.79
84	S2	484	A2M	O4'-C1'-C2'	2.48	110.86	106.59
84	S2	649	PSU	O2-C2-N1	-2.48	120.23	122.79
84	S2	1177	PSU	C6-N1-C2	-2.48	120.39	122.69
84	S2	1081	PSU	O2-C2-N1	-2.48	120.23	122.79
4	L5	2401	A2M	C3'-C2'-C1'	-2.47	98.07	102.81
4	L5	4442	PSU	C6-N1-C2	-2.47	120.40	122.69
4	L5	1323	A2M	C3'-C2'-C1'	-2.47	98.08	102.81
4	L5	3695	PSU	O2-C2-N1	-2.47	120.24	122.79
4	L5	3822	PSU	O4'-C1'-C2'	2.47	108.57	105.15
4	L5	4552	PSU	C6-N1-C2	-2.47	120.40	122.69
84	S2	1232	PSU	C6-N1-C2	-2.46	120.41	122.69
4	L5	2824	OMC	C1'-N1-C2	2.46	123.87	118.44
84	S2	105	PSU	C6-N1-C2	-2.45	120.42	122.69
6	L8	69	PSU	C6-N1-C2	-2.45	120.42	122.69
4	L5	5001	PSU	O2-C2-N1	-2.44	120.27	122.79
4	L5	4493	PSU	C6-N1-C2	-2.44	120.42	122.69
4	L5	1326	A2M	C1'-N9-C8	2.43	132.49	127.09
4	L5	3867	A2M	C1'-N9-C8	2.43	132.48	127.09
84	S2	1851	MA6	C1'-N9-C8	-2.42	121.72	127.09
4	L5	1326	A2M	O4'-C1'-C2'	2.42	110.75	106.59
84	S2	863	PSU	O2-C2-N1	-2.42	120.30	122.79
4	L5	2787	A2M	C4-N9-C1'	-2.42	120.98	126.63
4	L5	3822	PSU	C6-N1-C2	-2.41	120.45	122.69
4	L5	4457	PSU	C6-N1-C2	-2.41	120.45	122.69
4	L5	4532	PSU	C6-N1-C2	-2.41	120.45	122.69
84	S2	109	PSU	C6-N1-C2	-2.41	120.46	122.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	L5	4456	OMC	C1'-N1-C2	2.39	123.73	118.44
84	S2	166	A2M	C6-C5-C4	-2.39	113.92	117.18
4	L5	4353	PSU	C6-N1-C2	-2.38	120.48	122.69
4	L5	1862	PSU	C6-N1-C2	-2.38	120.48	122.69
84	S2	1244	PSU	C6-N1-C2	-2.38	120.48	122.69
4	L5	4571	A2M	O4'-C1'-C2'	2.38	110.68	106.59
4	L5	3844	PSU	C6-N1-C2	-2.38	120.48	122.69
84	S2	651	PSU	C6-N1-C2	-2.38	120.49	122.69
84	S2	462	OMC	C1'-N1-C2	2.38	123.69	118.44
4	L5	2787	A2M	O4'-C4'-C3'	2.37	109.86	105.15
4	L5	2787	A2M	C1'-N9-C8	2.37	132.35	127.09
4	L5	4530	UR3	C6-N1-C2	-2.36	119.87	121.80
4	L5	4590	A2M	C6-C5-C4	-2.36	113.96	117.18
4	L5	4293	PSU	C6-N1-C2	-2.36	120.50	122.69
84	S2	1272	OMC	C1'-N1-C2	2.36	123.64	118.44
4	L5	3884	PSU	C6-N1-C2	-2.35	120.51	122.69
4	L5	2401	A2M	O4'-C1'-C2'	2.35	110.63	106.59
4	L5	4220	6MZ	C5-C6-N1	2.35	120.67	118.15
4	L5	4523	A2M	C4'-O4'-C1'	-2.35	104.29	109.47
4	L5	1871	A2M	O4'-C1'-C2'	2.35	110.63	106.59
4	L5	1524	A2M	C4-N9-C1'	-2.34	121.16	126.63
4	L5	1781	PSU	C6-N1-C2	-2.33	120.53	122.69
4	L5	4296	PSU	C6-N1-C2	-2.33	120.53	122.69
4	L5	4442	PSU	C6-C5-C4	2.33	119.75	118.17
4	L5	3851	PSU	C6-N1-C2	-2.33	120.53	122.69
84	S2	428	OMU	O2-C2-N1	-2.33	119.77	122.80
84	S2	1639	G7M	N9-C8-N7	-2.33	106.83	112.48
84	S2	93	PSU	C6-N1-C2	-2.33	120.53	122.69
4	L5	2839	PSU	C6-N1-C2	-2.32	120.54	122.69
84	S2	814	PSU	C6-N1-C2	-2.32	120.54	122.69
84	S2	866	PSU	C6-N1-C2	-2.32	120.54	122.69
4	L5	2861	OMC	C1'-N1-C6	-2.32	115.83	120.78
4	L5	3867	A2M	C3'-C2'-C1'	-2.31	98.37	102.81
4	L5	3808	OMC	C1'-N1-C6	-2.31	115.85	120.78
84	S2	166	A2M	O4'-C1'-C2'	2.31	110.56	106.59
4	L5	2401	A2M	C6-C5-C4	-2.30	114.04	117.18
4	L5	4972	PSU	C6-N1-C2	-2.30	120.56	122.69
4	L5	3695	PSU	C6-N1-C2	-2.30	120.56	122.69
4	L5	3639	PSU	C6-N1-C2	-2.30	120.56	122.69
4	L5	1524	A2M	C1'-N9-C8	2.30	132.19	127.09
84	S2	1045	PSU	C6-N1-C2	-2.30	120.56	122.69
4	L5	4227	OMU	O2-C2-N1	-2.30	119.81	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	1081	PSU	C6-N1-C2	-2.29	120.56	122.69
84	S2	354	OMU	O2-C2-N1	-2.29	119.81	122.80
84	S2	1056	PSU	C6-N1-C2	-2.29	120.57	122.69
84	S2	1248	B8N	O4'-C1'-C2'	2.29	108.32	105.15
4	L5	4403	PSU	O4'-C1'-C2'	2.29	108.32	105.15
84	S2	1081	PSU	C6-C5-C4	2.28	119.71	118.17
4	L5	4220	6MZ	C3'-C2'-C1'	2.28	105.77	101.46
84	S2	686	PSU	C6-N1-C2	-2.28	120.58	122.69
84	S2	27	A2M	O4'-C1'-C2'	2.27	110.50	106.59
4	L5	1744	PSU	C6-N1-C2	-2.27	120.59	122.69
4	L5	4299	PSU	C6-N1-C2	-2.27	120.59	122.69
4	L5	1792	PSU	C6-N1-C2	-2.26	120.59	122.69
4	L5	2632	PSU	C6-N1-C2	-2.26	120.59	122.69
4	L5	3830	A2M	C6-C5-C4	-2.26	114.09	117.18
4	L5	5001	PSU	C6-N1-C2	-2.26	120.59	122.69
4	L5	3785	A2M	C6-C5-C4	-2.26	114.09	117.18
84	S2	1046	PSU	C6-N1-C2	-2.26	120.60	122.69
84	S2	1383	A2M	C6-C5-C4	-2.26	114.10	117.18
84	S2	159	A2M	O3'-C3'-C4'	-2.25	104.61	111.08
4	L5	1534	A2M	C2'-C1'-N9	2.25	117.46	113.75
4	L5	400	A2M	O4'-C1'-C2'	2.24	110.45	106.59
4	L5	4403	PSU	C6-N1-C2	-2.24	120.61	122.69
4	L5	4498	OMU	O2-C2-N1	-2.24	119.88	122.80
84	S2	1004	PSU	C6-N1-C2	-2.24	120.61	122.69
4	L5	2815	A2M	C2'-C1'-N9	2.24	117.43	113.75
4	L5	4590	A2M	O4'-C1'-C2'	2.24	110.44	106.59
4	L5	3825	A2M	O4'-C1'-C2'	2.23	110.43	106.59
4	L5	1323	A2M	C6-C5-C4	-2.23	114.13	117.18
84	S2	468	A2M	O4'-C1'-C2'	2.23	110.42	106.59
4	L5	3925	OMU	O2-C2-N1	-2.22	119.90	122.80
4	L5	4523	A2M	C6-C5-C4	-2.22	114.14	117.18
4	L5	4296	PSU	C6-C5-C4	2.22	119.67	118.17
84	S2	1031	A2M	C6-C5-C4	-2.21	114.16	117.18
4	L5	4636	PSU	C6-N1-C2	-2.21	120.64	122.69
4	L5	1524	A2M	C2'-C1'-N9	2.20	117.38	113.75
4	L5	3920	PSU	C6-N1-C2	-2.20	120.65	122.69
4	L5	1860	PSU	C6-N1-C2	-2.20	120.65	122.69
84	S2	966	PSU	C6-N1-C2	-2.19	120.66	122.69
84	S2	1174	PSU	C6-N1-C2	-2.19	120.66	122.69
4	L5	3782	5MC	C1'-N1-C6	-2.18	117.56	121.15
4	L5	4571	A2M	C6-C5-C4	-2.18	114.20	117.18
4	L5	4431	PSU	C6-C5-C4	2.18	119.64	118.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	L5	3825	A2M	C6-C5-C4	-2.17	114.21	117.18
4	L5	1534	A2M	C6-C5-C4	-2.17	114.22	117.18
84	S2	668	A2M	C6-C5-C4	-2.17	114.22	117.18
4	L5	2363	A2M	O4'-C1'-C2'	2.17	110.32	106.59
4	L5	3867	A2M	O4'-C1'-C2'	2.16	110.31	106.59
84	S2	1832	6MZ	C4-C5-N7	-2.16	108.11	110.58
4	L5	1322	1MA	N1-C6-N6	2.16	125.14	119.71
84	S2	121	OMU	O2-C2-N1	-2.16	119.98	122.80
4	L5	3822	PSU	C6-C5-C4	2.16	119.63	118.17
4	L5	3785	A2M	O4'-C1'-N9	2.16	112.23	108.09
4	L5	4361	PSU	C6-N1-C2	-2.16	120.69	122.69
4	L5	3830	A2M	O4'-C1'-C2'	2.16	110.30	106.59
4	L5	1744	PSU	O4'-C1'-C2'	2.16	108.13	105.15
4	L5	1871	A2M	C6-C5-C4	-2.15	114.24	117.18
4	L5	3867	A2M	C6-C5-C4	-2.15	114.24	117.18
84	S2	27	A2M	C6-C5-C4	-2.15	114.24	117.18
4	L5	3785	A2M	C2-N1-C6	-2.15	115.20	118.73
4	L5	398	A2M	C6-C5-C4	-2.15	114.24	117.18
4	L5	1524	A2M	C4'-O4'-C1'	-2.15	104.73	109.47
84	S2	668	A2M	O4'-C4'-C3'	2.14	109.41	105.15
84	S2	1326	OMU	O2-C2-N1	-2.14	120.01	122.80
4	L5	3853	PSU	C6-N1-C2	-2.14	120.70	122.69
4	L5	2839	PSU	C6-C5-C4	2.14	119.62	118.17
84	S2	863	PSU	C6-N1-C2	-2.14	120.71	122.69
84	S2	1248	B8N	O4-C4-C5	-2.14	118.88	122.58
4	L5	4457	PSU	O4'-C1'-C2'	2.14	108.11	105.15
4	L5	4576	PSU	O4'-C1'-C2'	2.14	108.11	105.15
4	L5	4523	A2M	O4'-C1'-C2'	2.14	110.26	106.59
4	L5	2815	A2M	C5-C6-N1	2.13	122.93	117.51
84	S2	172	OMU	O2-C2-N1	-2.13	120.02	122.80
84	S2	159	A2M	C6-C5-C4	-2.13	114.27	117.18
4	L5	5010	PSU	C6-N1-C2	-2.13	120.72	122.69
84	S2	99	A2M	C6-C5-C4	-2.13	114.27	117.18
84	S2	468	A2M	C6-C5-C4	-2.13	114.27	117.18
84	S2	799	OMU	C1'-N1-C2	2.12	121.40	117.59
4	L5	400	A2M	C6-C5-C4	-2.12	114.28	117.18
84	S2	1337	4AC	N4-C4-N3	2.12	117.31	113.87
4	L5	1326	A2M	O4'-C4'-C3'	2.12	109.35	105.15
4	L5	4636	PSU	O4'-C1'-C2'	2.11	108.08	105.15
4	L5	1326	A2M	C3'-C2'-C1'	-2.11	98.76	102.81
4	L5	2815	A2M	C4-N9-C1'	-2.11	121.70	126.63
4	L5	400	A2M	C2'-C1'-N9	2.11	117.22	113.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	S2	1383	A2M	C4'-O4'-C1'	-2.11	104.81	109.47
6	L8	69	PSU	O4'-C1'-C2'	2.10	108.06	105.15
4	L5	1534	A2M	C2-N1-C6	-2.10	115.28	118.73
4	L5	3701	OMC	C1'-N1-C2	2.10	123.08	118.44
4	L5	1534	A2M	C5-C6-N1	2.10	122.85	117.51
84	S2	649	PSU	C6-N1-C2	-2.10	120.74	122.69
4	L5	3695	PSU	O4'-C1'-C2'	2.09	108.05	105.15
4	L5	4972	PSU	O4'-C1'-C2'	2.09	108.05	105.15
4	L5	3867	A2M	C2-N1-C6	-2.09	115.29	118.73
2	CF	163	SEP	OG-CB-CA	2.09	110.18	108.14
4	L5	2837	OMU	O2-C2-N1	-2.09	120.08	122.80
84	S2	866	PSU	C6-C5-C4	2.09	119.58	118.17
84	S2	576	A2M	C6-C5-C4	-2.09	114.33	117.18
4	L5	2815	A2M	C2-N1-C6	-2.09	115.30	118.73
4	L5	1326	A2M	C2-N1-C6	-2.09	115.30	118.73
84	S2	1248	B8N	C31-N3-C4	2.09	120.13	117.18
4	L5	3718	A2M	C6-C5-C4	-2.08	114.33	117.18
4	L5	2363	A2M	C2-N1-C6	-2.08	115.31	118.73
4	L5	3718	A2M	C2-N1-C6	-2.08	115.31	118.73
84	S2	484	A2M	C2-N1-C6	-2.08	115.31	118.73
4	L5	4220	6MZ	C4'-O4'-C1'	-2.08	104.87	109.47
84	S2	1850	MA6	C1'-N9-C8	-2.08	122.48	127.09
84	S2	159	A2M	C5-C6-N1	2.08	122.79	117.51
4	L5	2815	A2M	C1'-N9-C8	2.08	131.70	127.09
84	S2	166	A2M	C5-C6-N1	2.08	122.78	117.51
4	L5	2787	A2M	C2-N1-C6	-2.07	115.32	118.73
4	L5	400	A2M	C5-C6-N1	2.07	122.77	117.51
4	L5	2401	A2M	C5-C6-N1	2.07	122.77	117.51
4	L5	3841	OMC	C1'-N1-C2	2.07	123.01	118.44
84	S2	99	A2M	C5-C6-N1	2.07	122.77	117.51
84	S2	1031	A2M	O4'-C1'-C2'	2.07	110.15	106.59
4	L5	3830	A2M	C5-C6-N1	2.06	122.75	117.51
84	S2	484	A2M	C5-C6-N1	2.06	122.75	117.51
4	L5	3785	A2M	C5-C6-N1	2.06	122.75	117.51
4	L5	1744	PSU	C6-C5-C4	2.06	119.56	118.17
84	S2	1031	A2M	C5-C6-N1	2.06	122.74	117.51
84	S2	99	A2M	C2-N1-C6	-2.06	115.35	118.73
84	S2	116	OMU	O2-C2-N1	-2.06	120.12	122.80
4	L5	4521	PSU	C6-N1-C2	-2.06	120.78	122.69
84	S2	627	OMU	O2-C2-N1	-2.06	120.12	122.80
4	L5	3818	UY1	O4'-C1'-C2'	2.05	108.16	104.56
4	L5	1323	A2M	C5-C6-N1	2.05	122.73	117.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	L5	4590	A2M	C5-C6-N1	2.05	122.73	117.51
84	S2	1383	A2M	C5-C6-N1	2.05	122.73	117.51
4	L5	2815	A2M	C3'-C2'-C1'	-2.05	98.88	102.81
4	L5	1524	A2M	C5-C6-N1	2.05	122.72	117.51
4	L5	3825	A2M	C5-C6-N1	2.05	122.72	117.51
4	L5	398	A2M	C5-C6-N1	2.05	122.72	117.51
84	S2	159	A2M	C2-N1-C6	-2.05	115.36	118.73
84	S2	1288	OMU	O2-C2-N1	-2.05	120.13	122.80
4	L5	4500	PSU	C6-C5-C4	2.05	119.55	118.17
84	S2	27	A2M	C5-C6-N1	2.04	122.70	117.51
4	L5	400	A2M	C2-N1-C6	-2.04	115.37	118.73
4	L5	2363	A2M	C6-C5-C4	-2.04	114.39	117.18
84	S2	1442	OMU	C1'-N1-C2	2.04	121.26	117.59
4	L5	3718	A2M	C5-C6-N1	2.04	122.70	117.51
4	L5	1323	A2M	C2-N1-C6	-2.04	115.38	118.73
4	L5	1871	A2M	C5-C6-N1	2.04	122.69	117.51
4	L5	2363	A2M	C5-C6-N1	2.04	122.69	117.51
4	L5	3920	PSU	O4'-C1'-C2'	2.04	107.97	105.15
4	L5	1524	A2M	C2-N1-C6	-2.03	115.39	118.73
4	L5	3637	PSU	C6-C5-C4	2.03	119.54	118.17
84	S2	1056	PSU	O4'-C1'-C2'	2.03	107.96	105.15
4	L5	3867	A2M	C5-C6-N1	2.03	122.66	117.51
84	S2	576	A2M	C5-C6-N1	2.03	122.66	117.51
4	L5	4523	A2M	C5-C6-N1	2.03	122.66	117.51
84	S2	1832	6MZ	C5-C6-N1	2.03	120.33	118.15
84	S2	1703	OMC	C1'-N1-C2	2.02	122.91	118.44
84	S2	576	A2M	C2-N1-C6	-2.02	115.41	118.73
4	L5	2787	A2M	C5-C6-N1	2.02	122.64	117.51
4	L5	1326	A2M	C5-C6-N1	2.02	122.64	117.51
4	L5	398	A2M	C2-N1-C6	-2.02	115.41	118.73
84	S2	668	A2M	C2-N1-C6	-2.02	115.42	118.73
4	L5	2815	A2M	O4'-C4'-C3'	2.02	109.16	105.15
4	L5	2815	A2M	C6-C5-C4	-2.02	114.43	117.18
4	L5	4312	PSU	C6-N1-C2	-2.01	120.82	122.69
84	S2	686	PSU	C6-C5-C4	2.01	119.53	118.17
84	S2	468	A2M	C5-C6-N1	2.01	122.62	117.51
4	L5	4493	PSU	C6-C5-C4	2.01	119.53	118.17
4	L5	4353	PSU	C6-C5-C4	2.01	119.53	118.17
4	L5	4972	PSU	C6-C5-C4	2.01	119.53	118.17
4	L5	3825	A2M	C2-N1-C6	-2.01	115.44	118.73

There are no chirality outliers.

All (163) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	CF	163	SEP	C-CA-CB-OG
2	CF	163	SEP	CA-CB-OG-P
2	CF	163	SEP	CB-OG-P-O2P
2	CF	163	SEP	CB-OG-P-O3P
6	L8	75	OMG	C1'-C2'-O2'-CM2
4	L5	400	A2M	C1'-C2'-O2'-CM'
4	L5	1316	OMG	C1'-C2'-O2'-CM2
4	L5	1323	A2M	C1'-C2'-O2'-CM'
4	L5	1326	A2M	O4'-C4'-C5'-O5'
4	L5	1326	A2M	C3'-C4'-C5'-O5'
4	L5	1326	A2M	C1'-C2'-O2'-CM'
4	L5	1340	OMC	C1'-C2'-O2'-CM2
4	L5	1625	OMG	O4'-C4'-C5'-O5'
4	L5	2351	OMC	C1'-C2'-O2'-CM2
4	L5	2364	OMG	O4'-C4'-C5'-O5'
4	L5	2787	A2M	C1'-C2'-O2'-CM'
4	L5	2787	A2M	C2'-C1'-N9-C8
4	L5	2787	A2M	C2'-C1'-N9-C4
4	L5	2824	OMC	C1'-C2'-O2'-CM2
4	L5	2861	OMC	C1'-C2'-O2'-CM2
4	L5	3701	OMC	O4'-C4'-C5'-O5'
4	L5	3718	A2M	C1'-C2'-O2'-CM'
4	L5	3744	OMG	C1'-C2'-O2'-CM2
4	L5	3792	OMG	O4'-C4'-C5'-O5'
4	L5	3825	A2M	C1'-C2'-O2'-CM'
4	L5	3830	A2M	C1'-C2'-O2'-CM'
4	L5	3867	A2M	C1'-C2'-O2'-CM'
4	L5	4196	OMG	C1'-C2'-O2'-CM2
4	L5	4220	6MZ	C5-C6-N6-C9
4	L5	4220	6MZ	N1-C6-N6-C9
4	L5	4220	6MZ	O4'-C4'-C5'-O5'
4	L5	4447	5MC	C2'-C1'-N1-C2
4	L5	4447	5MC	C2'-C1'-N1-C6
4	L5	4500	PSU	O4'-C4'-C5'-O5'
4	L5	4590	A2M	O4'-C4'-C5'-O5'
4	L5	4590	A2M	C1'-C2'-O2'-CM'
4	L5	4637	OMG	C1'-C2'-O2'-CM2
84	S2	27	A2M	C1'-C2'-O2'-CM'
84	S2	116	OMU	C1'-C2'-O2'-CM2
84	S2	159	A2M	C1'-C2'-O2'-CM'
84	S2	354	OMU	C1'-C2'-O2'-CM2
84	S2	468	A2M	C1'-C2'-O2'-CM'

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Mol	Chain	Res	Type	Atoms
84	S2	484	A2M	C1'-C2'-O2'-CM'
84	S2	644	OMG	O4'-C4'-C5'-O5'
84	S2	644	OMG	C1'-C2'-O2'-CM2
84	S2	668	A2M	C1'-C2'-O2'-CM'
84	S2	683	OMG	C3'-C4'-C5'-O5'
84	S2	1248	B8N	O4'-C4'-C5'-O5'
84	S2	1272	OMC	O4'-C4'-C5'-O5'
84	S2	1288	OMU	O4'-C4'-C5'-O5'
84	S2	1337	4AC	N3-C4-N4-C7
84	S2	1383	A2M	C1'-C2'-O2'-CM'
84	S2	1442	OMU	O4'-C4'-C5'-O5'
84	S2	1832	6MZ	C5-C6-N6-C9
84	S2	1832	6MZ	N1-C6-N6-C9
84	S2	1832	6MZ	C5'-O5'-P-O1P
84	S2	1832	6MZ	C5'-O5'-P-O3P
84	S2	1248	B8N	N34-C33-C34-O36
4	L5	1323	A2M	O4'-C4'-C5'-O5'
4	L5	1536	PSU	C3'-C4'-C5'-O5'
4	L5	2787	A2M	C3'-C4'-C5'-O5'
4	L5	3701	OMC	C3'-C4'-C5'-O5'
4	L5	4500	PSU	C3'-C4'-C5'-O5'
4	L5	4590	A2M	C3'-C4'-C5'-O5'
4	L5	4618	OMG	C3'-C4'-C5'-O5'
84	S2	517	OMC	C3'-C4'-C5'-O5'
84	S2	517	OMC	O4'-C4'-C5'-O5'
84	S2	801	PSU	C3'-C4'-C5'-O5'
84	S2	1272	OMC	C3'-C4'-C5'-O5'
84	S2	1288	OMU	C3'-C4'-C5'-O5'
84	S2	1832	6MZ	O4'-C4'-C5'-O5'
4	L5	1524	A2M	C3'-C4'-C5'-O5'
4	L5	1536	PSU	O4'-C4'-C5'-O5'
4	L5	1625	OMG	C3'-C4'-C5'-O5'
4	L5	2422	OMC	C3'-C4'-C5'-O5'
4	L5	3899	OMG	O4'-C4'-C5'-O5'
4	L5	3899	OMG	C3'-C4'-C5'-O5'
4	L5	4618	OMG	O4'-C4'-C5'-O5'
84	S2	576	A2M	O4'-C4'-C5'-O5'
84	S2	683	OMG	O4'-C4'-C5'-O5'
84	S2	1045	PSU	C3'-C4'-C5'-O5'
84	S2	1045	PSU	O4'-C4'-C5'-O5'
84	S2	1442	OMU	C3'-C4'-C5'-O5'
4	L5	3792	OMG	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
4	L5	4220	6MZ	C3'-C4'-C5'-O5'
84	S2	1248	B8N	C3'-C4'-C5'-O5'
4	L5	1323	A2M	C3'-C4'-C5'-O5'
4	L5	1524	A2M	O4'-C4'-C5'-O5'
4	L5	2364	OMG	C3'-C4'-C5'-O5'
84	S2	576	A2M	C3'-C4'-C5'-O5'
84	S2	644	OMG	C3'-C4'-C5'-O5'
84	S2	799	OMU	C3'-C4'-C5'-O5'
4	L5	2422	OMC	O4'-C4'-C5'-O5'
4	L5	2787	A2M	O4'-C4'-C5'-O5'
4	L5	4296	PSU	O4'-C4'-C5'-O5'
84	S2	99	A2M	O4'-C4'-C5'-O5'
84	S2	799	OMU	O4'-C4'-C5'-O5'
84	S2	627	OMU	C2'-C1'-N1-C6
4	L5	1534	A2M	C3'-C2'-O2'-CM'
4	L5	4296	PSU	C3'-C4'-C5'-O5'
84	S2	668	A2M	O4'-C4'-C5'-O5'
84	S2	801	PSU	O4'-C4'-C5'-O5'
4	L5	4590	A2M	C4'-C5'-O5'-P
2	CF	163	SEP	CB-OG-P-O1P
84	S2	1832	6MZ	C5'-O5'-P-O2P
84	S2	1832	6MZ	C3'-C4'-C5'-O5'
84	S2	668	A2M	C3'-C4'-C5'-O5'
84	S2	509	OMG	C1'-C2'-O2'-CM2
84	S2	99	A2M	C3'-C4'-C5'-O5'
84	S2	1383	A2M	O4'-C4'-C5'-O5'
4	L5	3701	OMC	O4'-C1'-N1-C6
84	S2	1383	A2M	C3'-C4'-C5'-O5'
4	L5	4447	5MC	O4'-C1'-N1-C6
84	S2	627	OMU	O4'-C1'-N1-C6
4	L5	3701	OMC	O4'-C1'-N1-C2
4	L5	1534	A2M	C4'-C5'-O5'-P
4	L5	4500	PSU	C4'-C5'-O5'-P
84	S2	576	A2M	C4'-C5'-O5'-P
2	CF	163	SEP	N-CA-CB-OG
4	L5	3822	PSU	C3'-C4'-C5'-O5'
84	S2	627	OMU	O4'-C4'-C5'-O5'
84	S2	627	OMU	C2'-C1'-N1-C2
4	L5	3844	PSU	C4'-C5'-O5'-P
4	L5	1677	PSU	O4'-C1'-C5-C4
4	L5	4521	PSU	O4'-C1'-C5-C4
4	L5	4636	PSU	O4'-C1'-C5-C4

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Mol	Chain	Res	Type	Atoms
4	L5	5010	PSU	O4'-C1'-C5-C4
4	L5	3818	UY1	C4'-C5'-O5'-P
4	L5	3887	OMC	C4'-C5'-O5'-P
84	S2	1081	PSU	C4'-C5'-O5'-P
4	L5	4293	PSU	O4'-C4'-C5'-O5'
84	S2	1851	MA6	C5-C6-N6-C10
4	L5	4447	5MC	O4'-C1'-N1-C2
84	S2	1851	MA6	C4'-C5'-O5'-P
4	L5	4523	A2M	O4'-C4'-C5'-O5'
84	S2	627	OMU	O4'-C1'-N1-C2
84	S2	644	OMG	C4'-C5'-O5'-P
4	L5	1781	PSU	C3'-C4'-C5'-O5'
4	L5	3841	OMC	C1'-C2'-O2'-CM2
84	S2	576	A2M	C1'-C2'-O2'-CM'
84	S2	1490	OMG	C4'-C5'-O5'-P
84	S2	428	OMU	O4'-C1'-N1-C6
4	L5	2815	A2M	O4'-C4'-C5'-O5'
4	L5	4623	OMG	C3'-C4'-C5'-O5'
4	L5	4521	PSU	O4'-C1'-C5-C6
4	L5	5010	PSU	O4'-C1'-C5-C6
84	S2	428	OMU	C2'-C1'-N1-C6
4	L5	1524	A2M	C3'-C2'-O2'-CM'
4	L5	2351	OMC	O4'-C4'-C5'-O5'
4	L5	3887	OMC	C3'-C4'-C5'-O5'
4	L5	1524	A2M	O4'-C1'-N9-C8
4	L5	3822	PSU	O4'-C4'-C5'-O5'
84	S2	159	A2M	O4'-C4'-C5'-O5'
84	S2	517	OMC	C4'-C5'-O5'-P
4	L5	2815	A2M	C3'-C2'-O2'-CM'
4	L5	1677	PSU	O4'-C4'-C5'-O5'
4	L5	2861	OMC	O4'-C4'-C5'-O5'
4	L5	3851	PSU	C3'-C4'-C5'-O5'
4	L5	4447	5MC	O4'-C4'-C5'-O5'
84	S2	428	OMU	O4'-C4'-C5'-O5'
4	L5	2861	OMC	C2'-C1'-N1-C2
84	S2	867	OMG	C4'-C5'-O5'-P
84	S2	1248	B8N	N34-C33-C34-O35

There are no ring outliers.

No monomer is involved in short contacts.

4.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

4.6 Ligand geometry (i)

Of 244 ligands modelled in this entry, 225 are monoatomic - leaving 19 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	$\#\|Z\| > 2$
88	SPM	L5	5268	-	13,13,13	0.35	0	12,12,12	1.01	0
90	3HE	L5	5296	-	21,21,21	0.41	0	23,30,30	0.93	1 (4%)
91	HMT	L5	5297	-	41,43,43	4.55	15 (36%)	43,66,66	2.01	14 (32%)
89	SPD	L5	5283	-	9,9,9	0.33	0	8,8,8	0.84	0
89	SPD	L5	5262	-	9,9,9	0.33	0	8,8,8	0.95	0
89	SPD	L5	5284	-	9,9,9	0.33	0	8,8,8	0.85	0
88	SPM	L5	5265	-	13,13,13	0.35	0	12,12,12	0.99	0
89	SPD	L5	5286	-	9,9,9	0.33	0	8,8,8	0.82	0
88	SPM	L5	5292	-	13,13,13	0.35	0	12,12,12	0.95	0
88	SPM	L5	5264	-	13,13,13	0.35	0	12,12,12	0.95	0
89	SPD	L5	5290	-	9,9,9	0.32	0	8,8,8	0.92	0
89	SPD	LN	301	-	9,9,9	0.32	0	8,8,8	0.87	0
89	SPD	L5	5287	-	9,9,9	0.32	0	8,8,8	0.87	0
89	SPD	L5	5285	-	9,9,9	0.33	0	8,8,8	0.83	0
88	SPM	L5	5293	-	13,13,13	0.35	0	12,12,12	0.90	0
88	SPM	L5	5259	-	13,13,13	0.35	0	12,12,12	0.98	0
89	SPD	L5	5291	-	9,9,9	0.32	0	8,8,8	0.80	0
89	SPD	L5	5288	-	9,9,9	0.32	0	8,8,8	0.86	0
88	SPM	L5	5289	-	13,13,13	0.36	0	12,12,12	0.91	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
88	SPM	L5	5268	-	-	3/11/11/11	-
90	3HE	L5	5296	-	-	1/8/36/36	0/2/2/2
91	HMT	L5	5297	-	-	8/27/74/74	0/5/5/5
89	SPD	L5	5283	-	-	1/7/7/7	-
89	SPD	L5	5262	-	-	1/7/7/7	-
89	SPD	L5	5284	-	-	3/7/7/7	-
88	SPM	L5	5265	-	-	5/11/11/11	-
89	SPD	L5	5286	-	-	0/7/7/7	-
88	SPM	L5	5292	-	-	3/11/11/11	-
88	SPM	L5	5264	-	-	3/11/11/11	-
89	SPD	L5	5290	-	-	2/7/7/7	-
89	SPD	LN	301	-	-	1/7/7/7	-
89	SPD	L5	5287	-	-	3/7/7/7	-
89	SPD	L5	5285	-	-	2/7/7/7	-
88	SPM	L5	5293	-	-	1/11/11/11	-
88	SPM	L5	5259	-	-	2/11/11/11	-
89	SPD	L5	5291	-	-	2/7/7/7	-
89	SPD	L5	5288	-	-	2/7/7/7	-
88	SPM	L5	5289	-	-	5/11/11/11	-

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
91	L5	5297	HMT	C8-C7	18.29	1.79	1.52
91	L5	5297	HMT	C7-C6	12.08	1.77	1.51
91	L5	5297	HMT	C5-C4	-10.08	1.36	1.51
91	L5	5297	HMT	C10-N1	7.58	1.57	1.47
91	L5	5297	HMT	C1-C2	7.05	1.43	1.32
91	L5	5297	HMT	O4-C19	5.82	1.45	1.34
91	L5	5297	HMT	C9-N1	-4.87	1.34	1.48
91	L5	5297	HMT	O4-C3	-4.42	1.36	1.44
91	L5	5297	HMT	C12-C9	3.62	1.60	1.54
91	L5	5297	HMT	O3-C2	3.20	1.41	1.35
91	L5	5297	HMT	O7-C22	2.65	1.41	1.33
91	L5	5297	HMT	C3-C2	-2.54	1.44	1.50
91	L5	5297	HMT	O2-C15	2.44	1.42	1.38
91	L5	5297	HMT	O1-C14	2.41	1.42	1.38
91	L5	5297	HMT	C21-C22	2.28	1.55	1.50

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
91	L5	5297	HMT	O4-C19-C20	5.73	121.75	111.24
91	L5	5297	HMT	O7-C22-C21	5.06	120.05	111.16
91	L5	5297	HMT	C3-O4-C19	-3.88	111.14	117.24
91	L5	5297	HMT	O1-C14-C13	3.29	132.23	127.86
91	L5	5297	HMT	O2-C15-C16	3.04	131.90	127.86
91	L5	5297	HMT	C25-C24-C20	-2.83	108.74	115.34
91	L5	5297	HMT	O4-C19-O5	-2.59	119.37	123.95
91	L5	5297	HMT	C17-O1-C14	2.42	108.55	105.32
91	L5	5297	HMT	O5-C19-C20	-2.32	118.88	124.07
91	L5	5297	HMT	C10-N1-C9	-2.19	101.58	107.65
91	L5	5297	HMT	C18-O3-C2	-2.15	112.97	116.53
91	L5	5297	HMT	C13-C5-C6	-2.12	117.08	119.39
91	L5	5297	HMT	C16-C15-C14	-2.10	119.40	122.03
90	L5	5296	3HE	C9-C13-C12	-2.10	110.94	114.46
91	L5	5297	HMT	C17-O2-C15	2.09	108.12	105.32

There are no chirality outliers.

All (48) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
91	L5	5297	HMT	C1-C2-O3-C18
91	L5	5297	HMT	C3-C2-O3-C18
91	L5	5297	HMT	C25-C26-C27-O9
88	L5	5292	SPM	C7-C8-C9-N10
91	L5	5297	HMT	C21-C22-O7-C23
88	L5	5265	SPM	N5-C6-C7-C8
89	L5	5288	SPD	N6-C7-C8-C9
88	L5	5268	SPM	N10-C11-C12-C13
88	L5	5289	SPM	N10-C11-C12-C13
91	L5	5297	HMT	O8-C22-O7-C23
88	L5	5264	SPM	C7-C8-C9-N10
88	L5	5265	SPM	C8-C9-N10-C11
88	L5	5265	SPM	C12-C11-N10-C9
88	L5	5289	SPM	C7-C6-N5-C4
89	L5	5291	SPD	C4-C5-N6-C7
89	L5	5285	SPD	C2-C3-C4-C5
89	L5	5287	SPD	C3-C4-C5-N6
91	L5	5297	HMT	C25-C26-C27-C28
91	L5	5297	HMT	C25-C26-C27-C29
88	L5	5289	SPM	C7-C8-C9-N10
88	L5	5264	SPM	C6-C7-C8-C9
88	L5	5259	SPM	C6-C7-C8-C9
89	L5	5283	SPD	C2-C3-C4-C5

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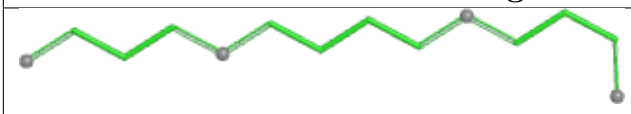
Mol	Chain	Res	Type	Atoms
88	L5	5289	SPM	C6-C7-C8-C9
89	L5	5262	SPD	C2-C3-C4-C5
88	L5	5264	SPM	C11-C12-C13-N14
88	L5	5289	SPM	N1-C2-C3-C4
89	L5	5284	SPD	C7-C8-C9-N10
91	L5	5297	HMT	C20-C24-C25-C26
89	L5	5291	SPD	N6-C7-C8-C9
88	L5	5292	SPM	N10-C11-C12-C13
89	L5	5287	SPD	C4-C5-N6-C7
89	L5	5287	SPD	C2-C3-C4-C5
88	L5	5292	SPM	C8-C9-N10-C11
89	L5	5290	SPD	C7-C8-C9-N10
88	L5	5268	SPM	C8-C9-N10-C11
89	LN	301	SPD	C8-C7-N6-C5
89	L5	5290	SPD	C2-C3-C4-C5
88	L5	5293	SPM	C7-C6-N5-C4
88	L5	5265	SPM	C7-C6-N5-C4
89	L5	5285	SPD	N6-C7-C8-C9
88	L5	5265	SPM	C6-C7-C8-C9
90	L5	5296	3HE	C7-C8-C9-C10
89	L5	5284	SPD	C8-C7-N6-C5
88	L5	5259	SPM	C11-C12-C13-N14
89	L5	5288	SPD	C7-C8-C9-N10
89	L5	5284	SPD	N1-C2-C3-C4
88	L5	5268	SPM	C7-C8-C9-N10

There are no ring outliers.

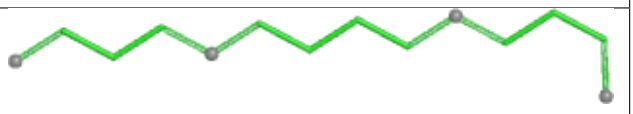
No monomer is involved in short contacts.

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.

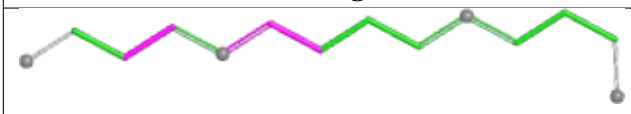
Ligand SPM L5 5268



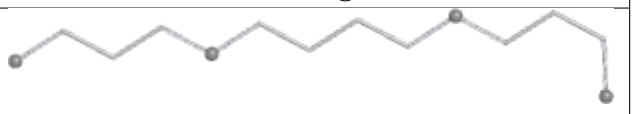
Bond lengths



Bond angles

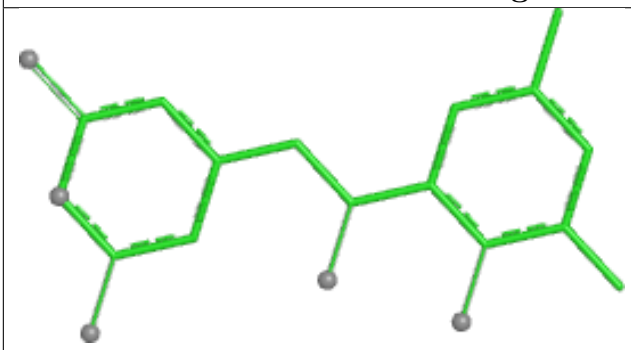


Torsions

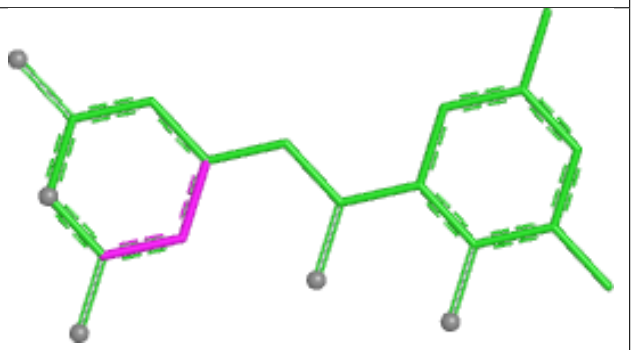


Rings

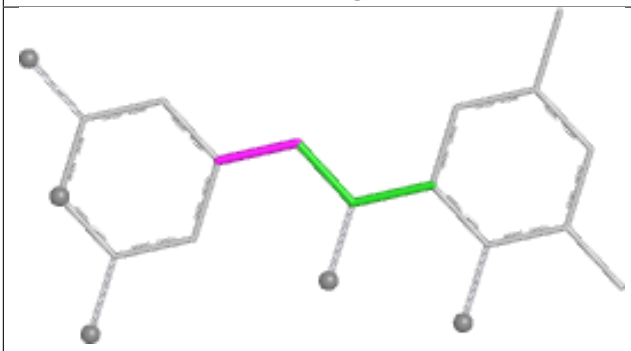
Ligand 3HE L5 5296



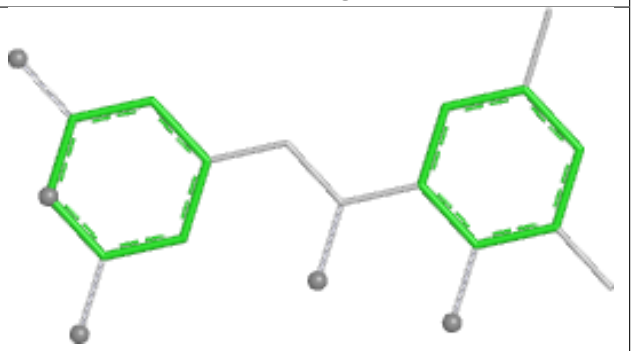
Bond lengths



Bond angles

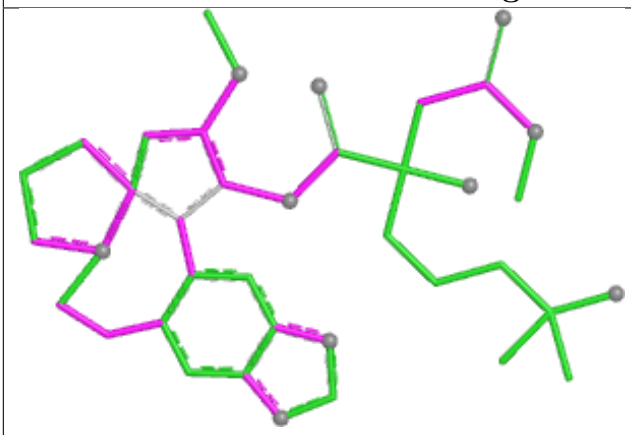


Torsions

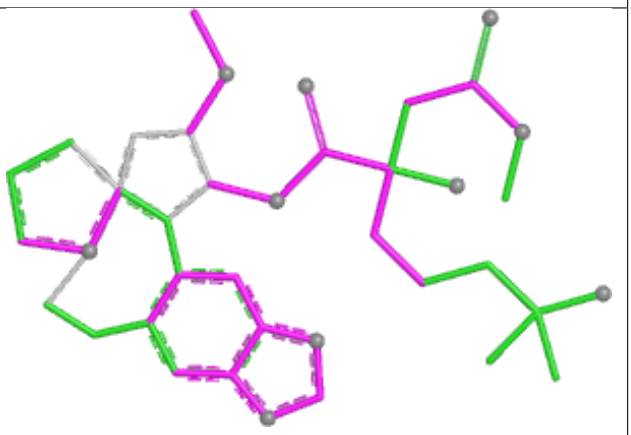


Rings

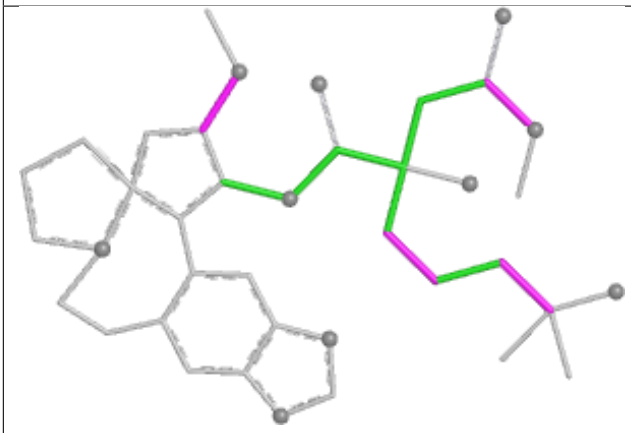
Ligand HMT L5 5297



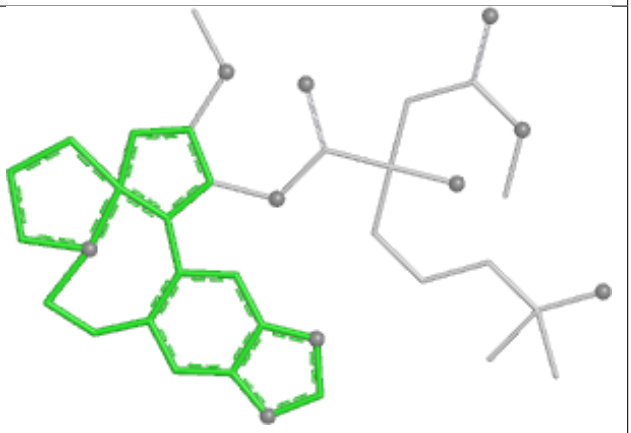
Bond lengths



Bond angles

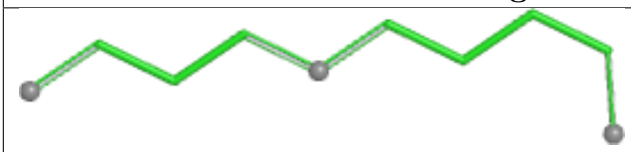


Torsions

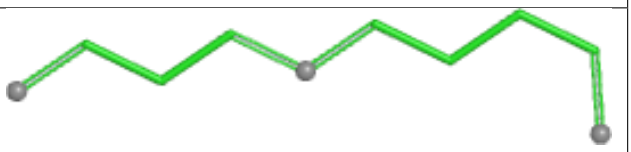


Rings

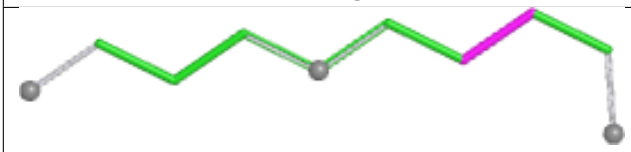
Ligand SPD L5 5283



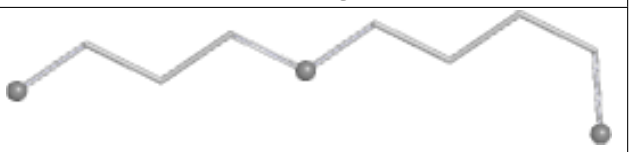
Bond lengths



Bond angles

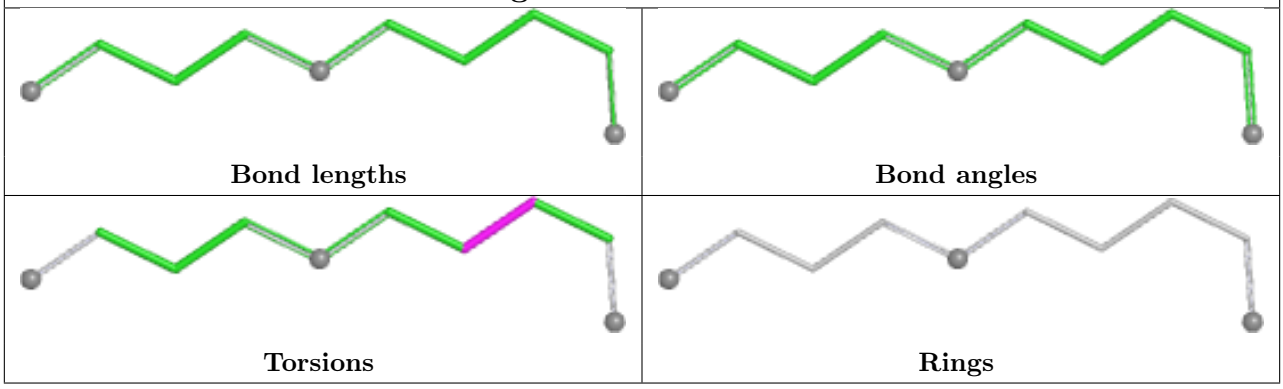


Torsions

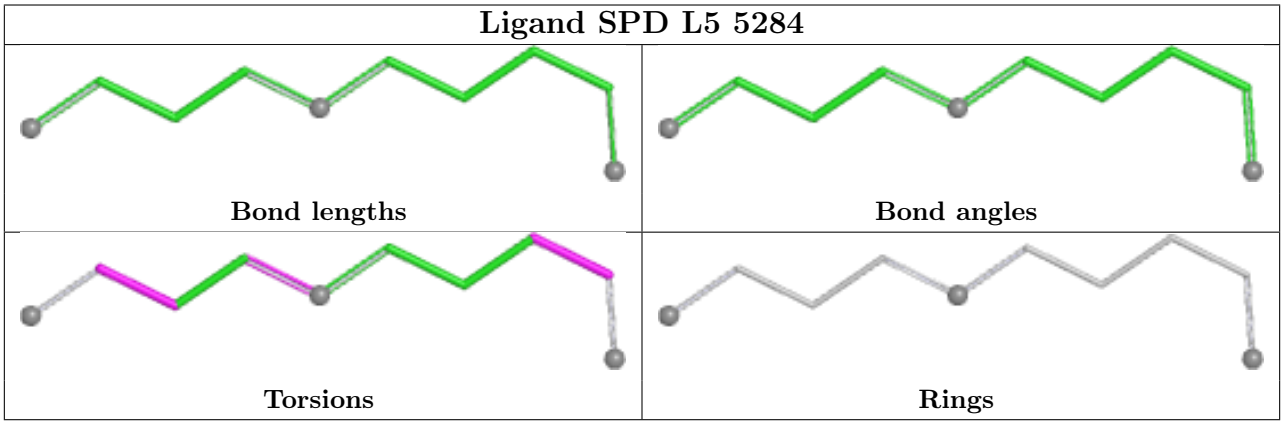


Rings

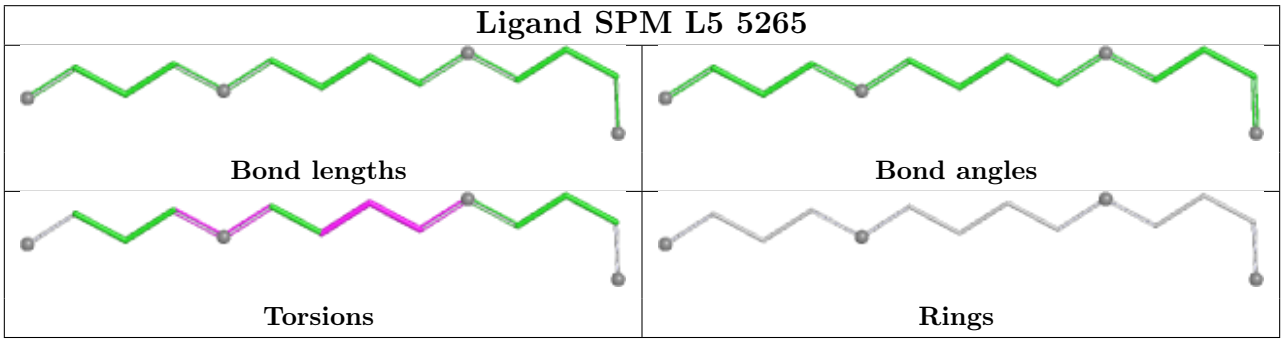
Ligand SPD L5 5262



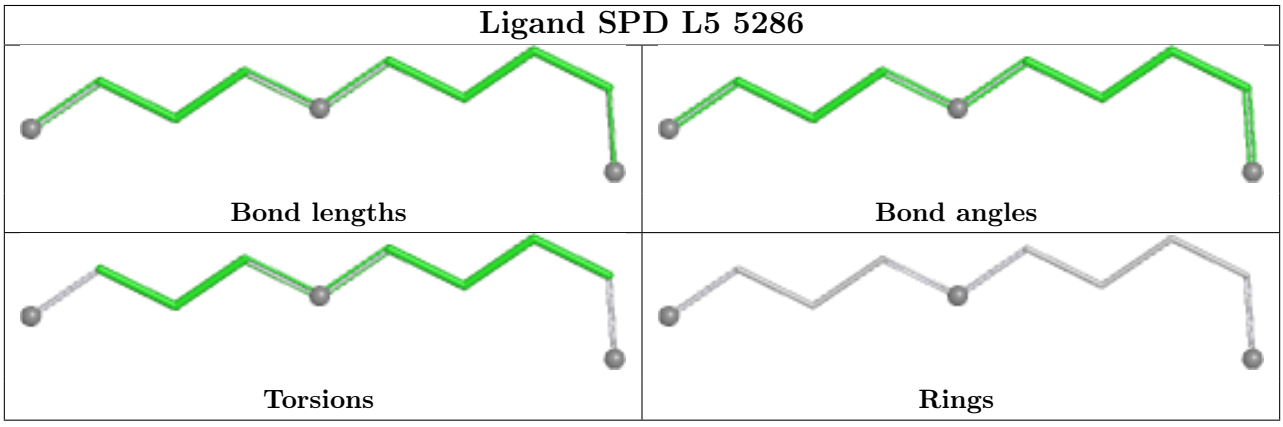
Ligand SPD L5 5284



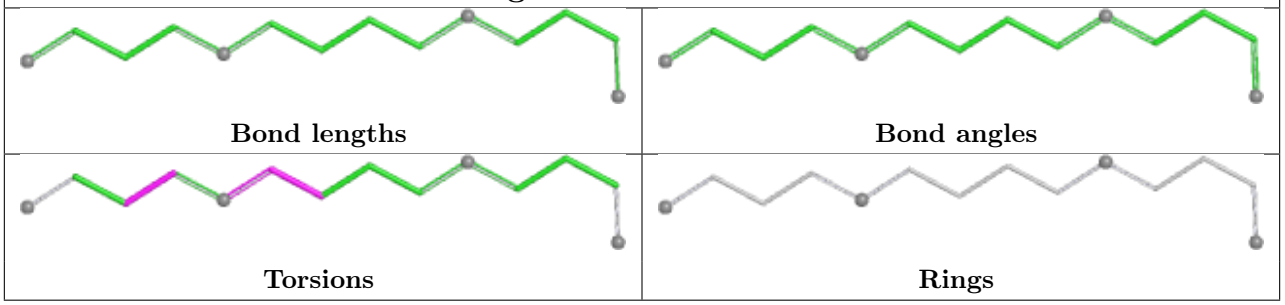
Ligand SPM L5 5265



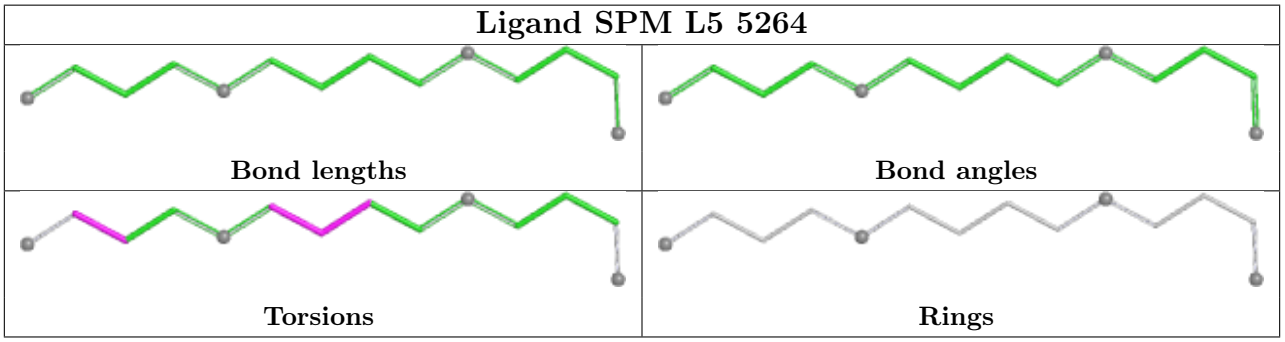
Ligand SPD L5 5286



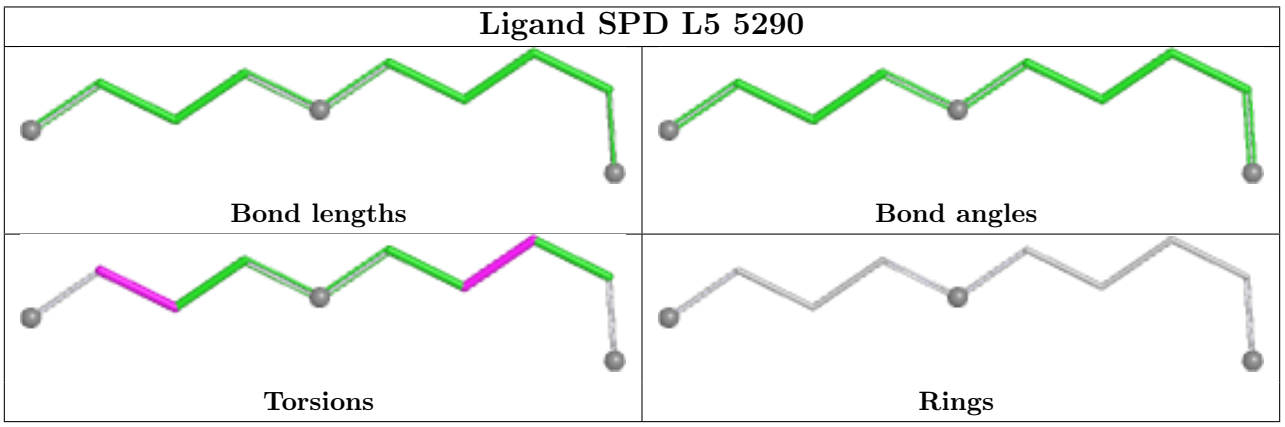
Ligand SPM L5 5292



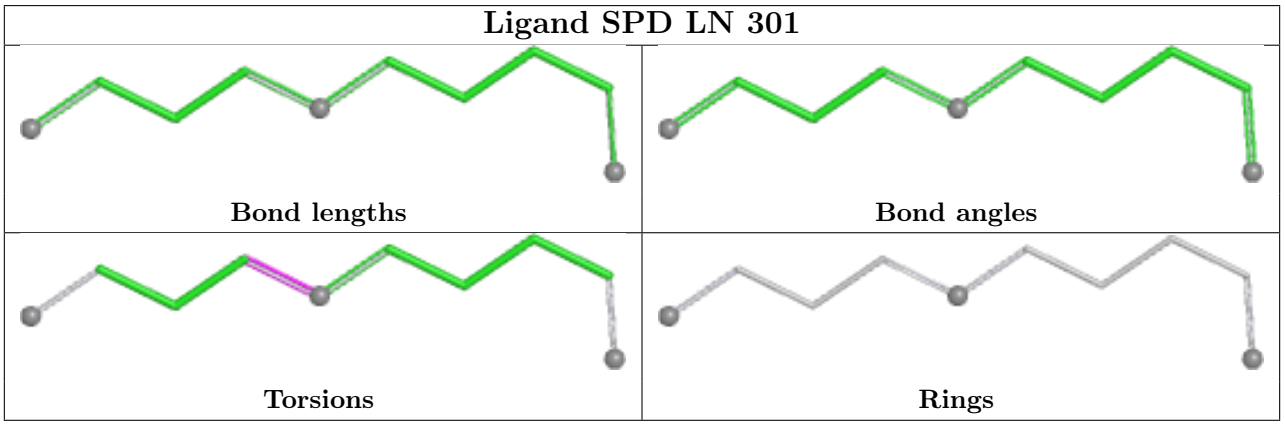
Ligand SPM L5 5264



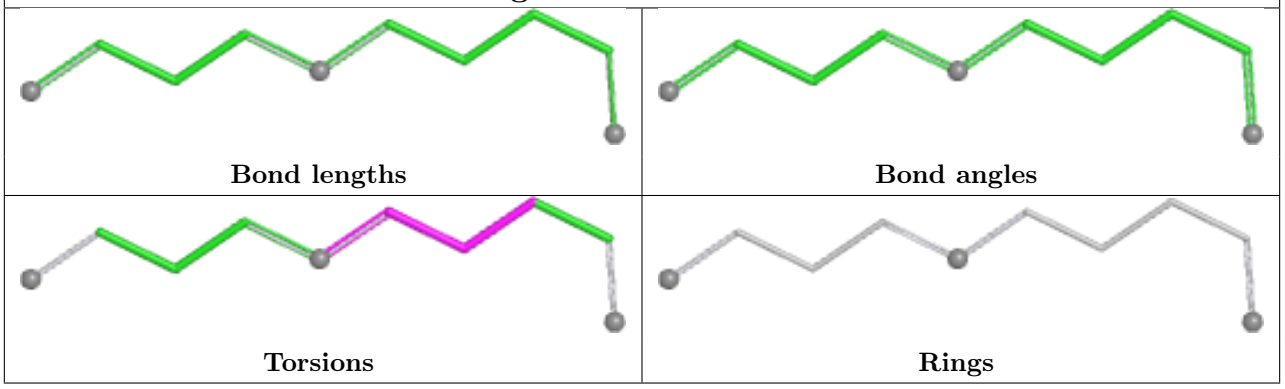
Ligand SPD L5 5290



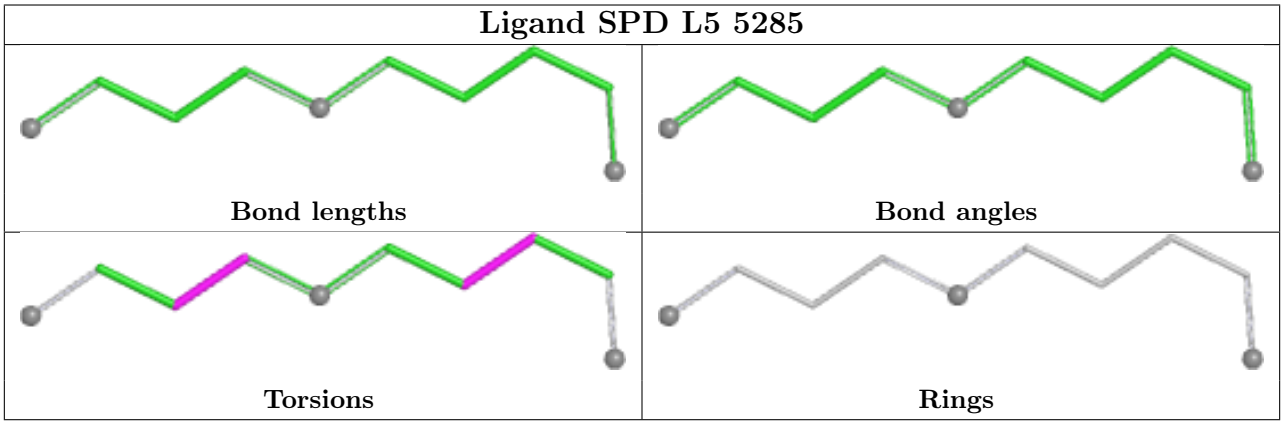
Ligand SPD LN 301



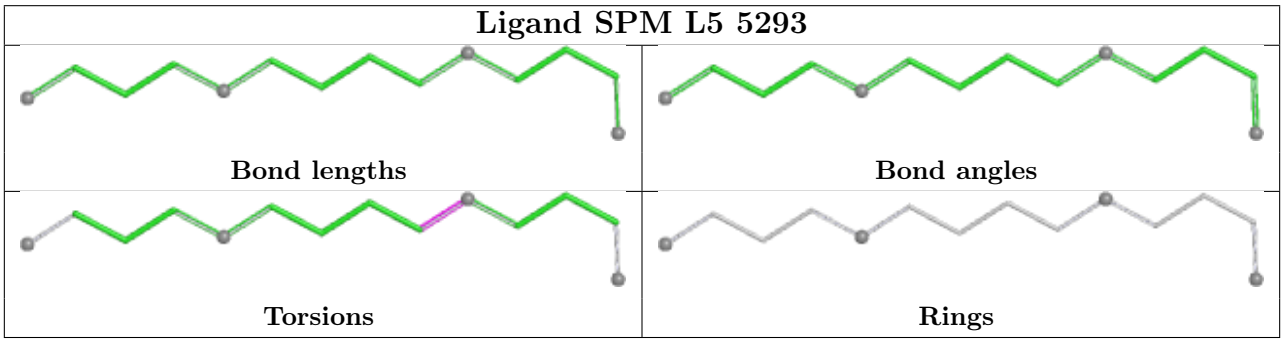
Ligand SPD L5 5287



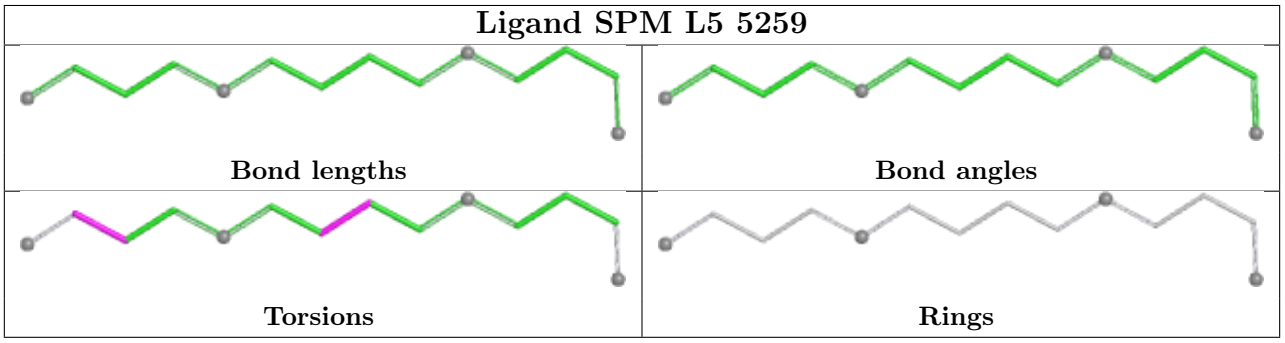
Ligand SPD L5 5285

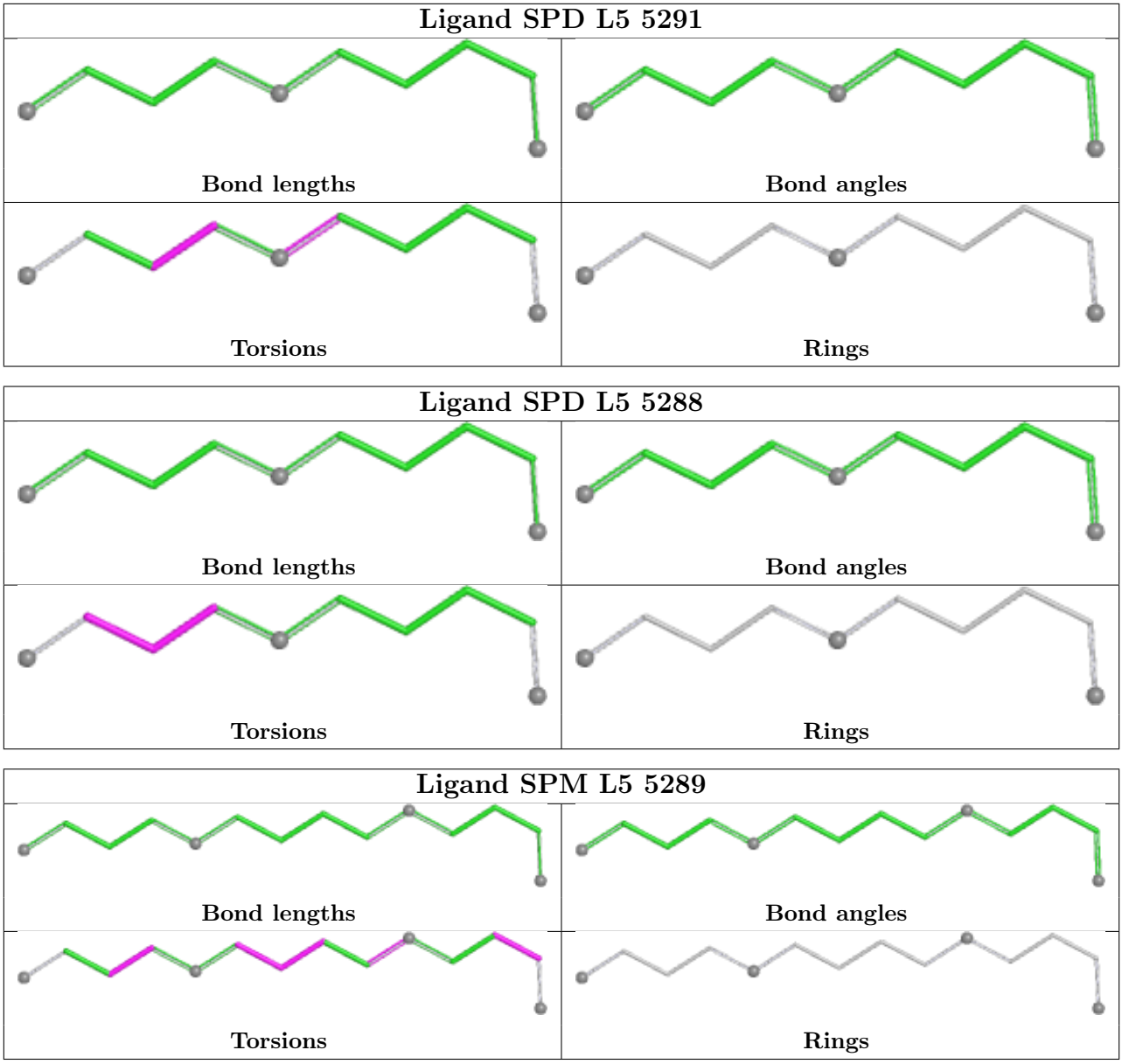


Ligand SPM L5 5293



Ligand SPM L5 5259





4.7 Other polymers

There are no such residues in this entry.

4.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
4	L5	10
84	S2	5
1	Pt	1

Continued on next page...

Continued from previous page...

Mol	Chain	Number of breaks
3	AT	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	S2	753:C	O3'	785:C	P	29.10
1	L5	1706:A	O3'	1716:G	P	22.00
1	L5	2910:G	O3'	3584:C	P	21.10
1	L5	760:G	O3'	903:C	P	17.10
1	L5	519:C	O3'	642:G	P	15.85
1	L5	4776:G	O3'	4858:C	P	14.95
1	S2	698:G	O3'	730:C	P	14.89
1	L5	2112:G	O3'	2249:C	P	14.72
1	L5	3954:A	O3'	4056:A	P	13.01
1	S2	739:C	O3'	746:C	P	12.79
1	L5	990:C	O3'	1064:G	P	12.33
1	Pt	15:G	O3'	18:G	P	10.04
1	L5	1222:A	O3'	1234:G	P	9.20
1	S2	225:G	O3'	287:U	P	7.57
1	L5	1100:U	O3'	1167:C	P	7.12
1	AT	16:C	O3'	18:G	P	4.52
1	S2	1831:A	O3'	1832:6MZ	P	4.22

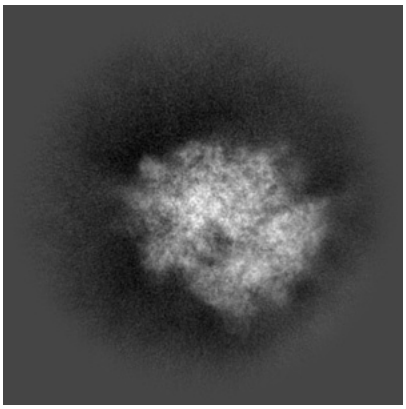
5 Map visualisation

This section contains visualisations of the EMDB entry EMD-71343. These allow visual inspection of the internal detail of the map and identification of artifacts.

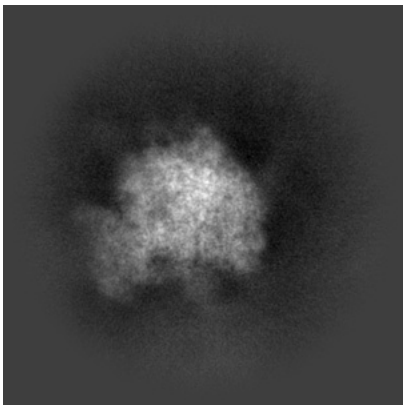
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

5.1 Orthogonal projections

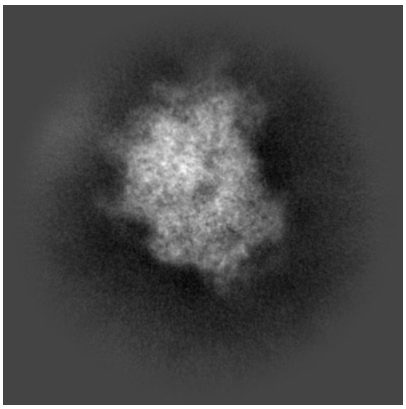
5.1.1 Primary map



X

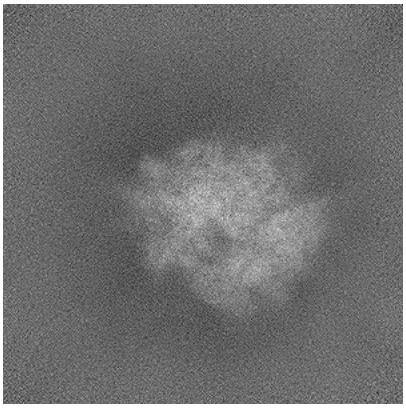


Y

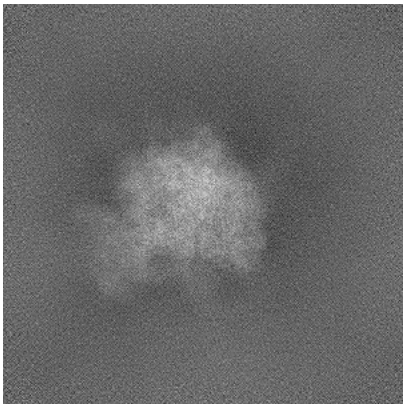


Z

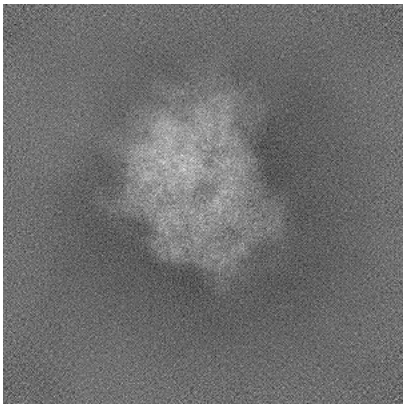
5.1.2 Raw map



X



Y

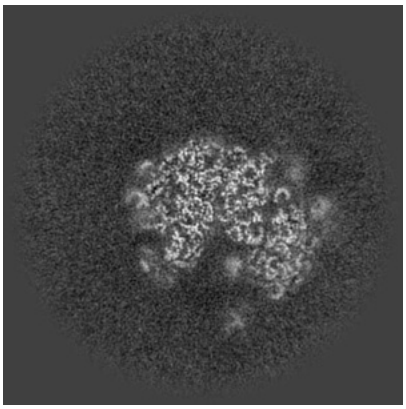


Z

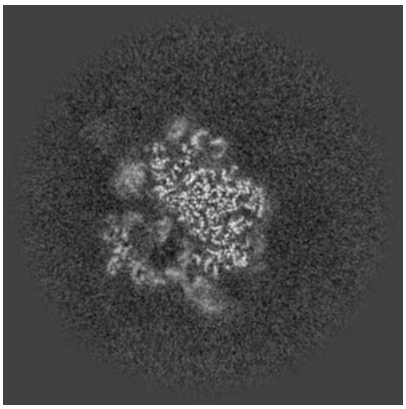
The images above show the map projected in three orthogonal directions.

5.2 Central slices (i)

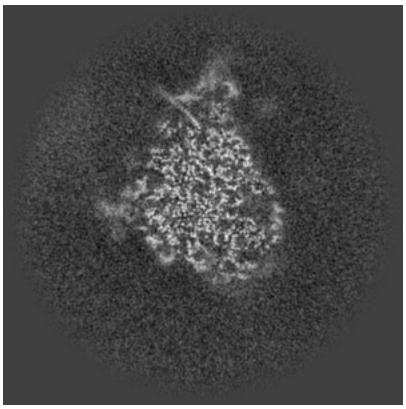
5.2.1 Primary map



X Index: 256

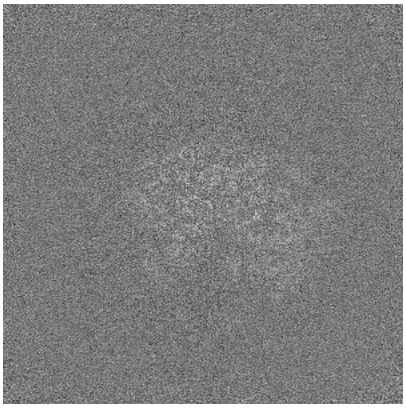


Y Index: 256

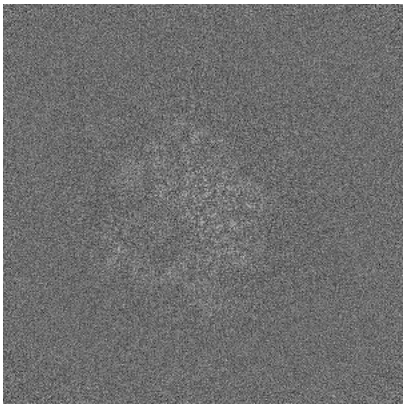


Z Index: 256

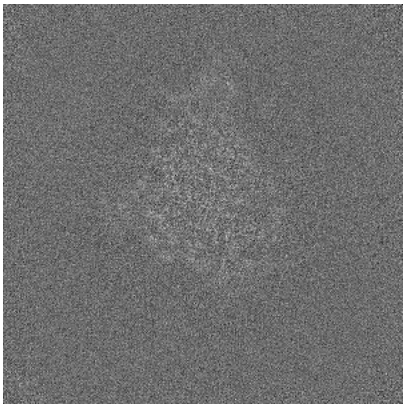
5.2.2 Raw map



X Index: 256



Y Index: 256

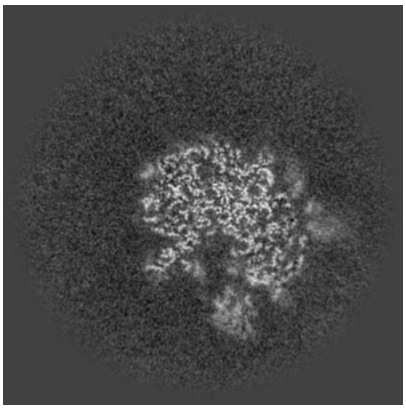


Z Index: 256

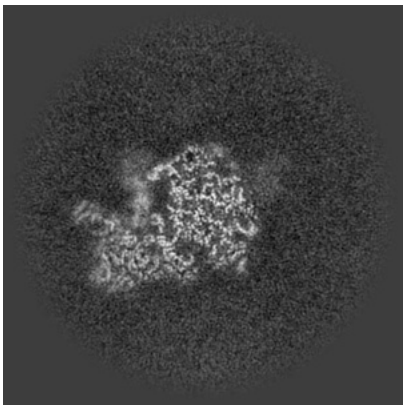
The images above show central slices of the map in three orthogonal directions.

5.3 Largest variance slices (i)

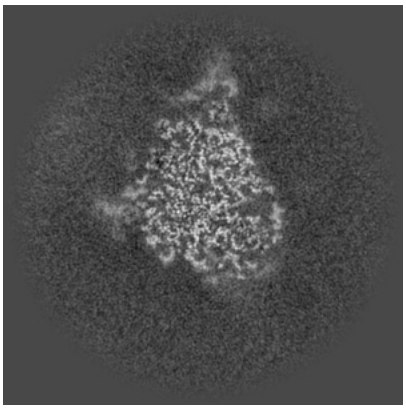
5.3.1 Primary map



X Index: 243

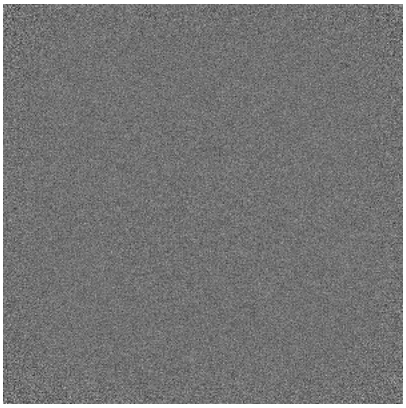


Y Index: 295

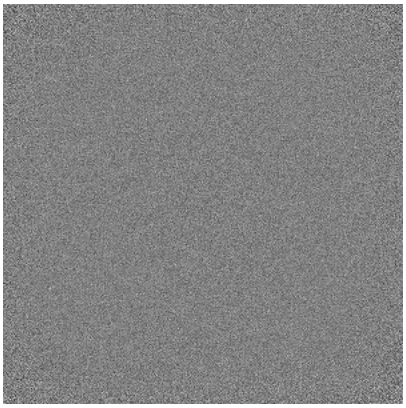


Z Index: 258

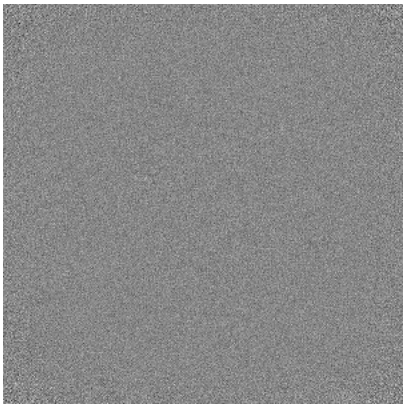
5.3.2 Raw map



X Index: 0



Y Index: 0

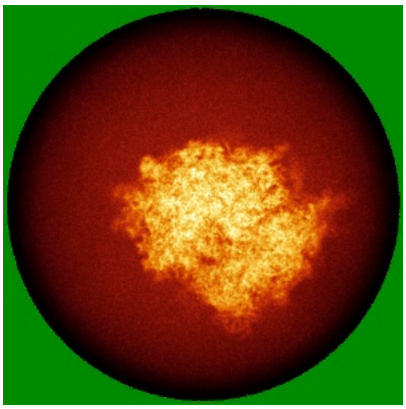


Z Index: 0

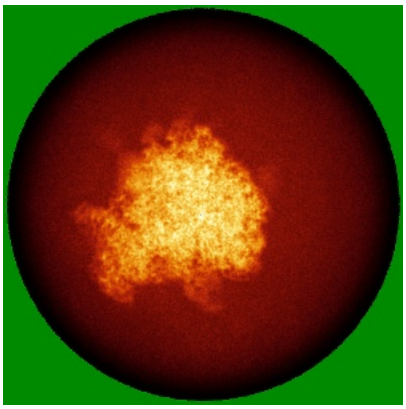
The images above show the largest variance slices of the map in three orthogonal directions.

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

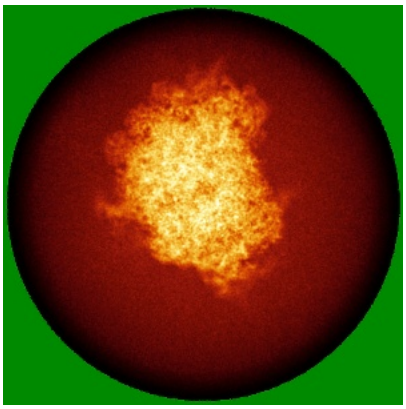
5.4.1 Primary map



X

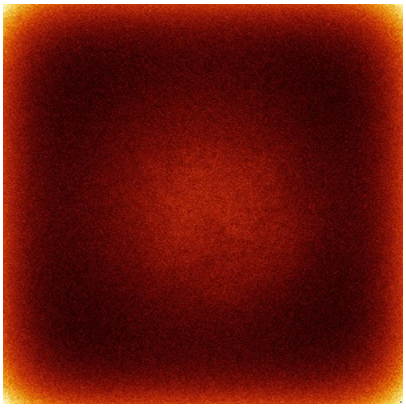


Y

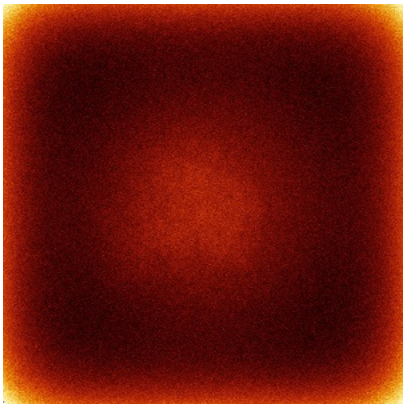


Z

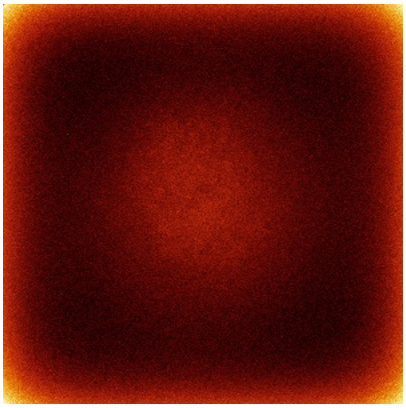
5.4.2 Raw map



X



Y

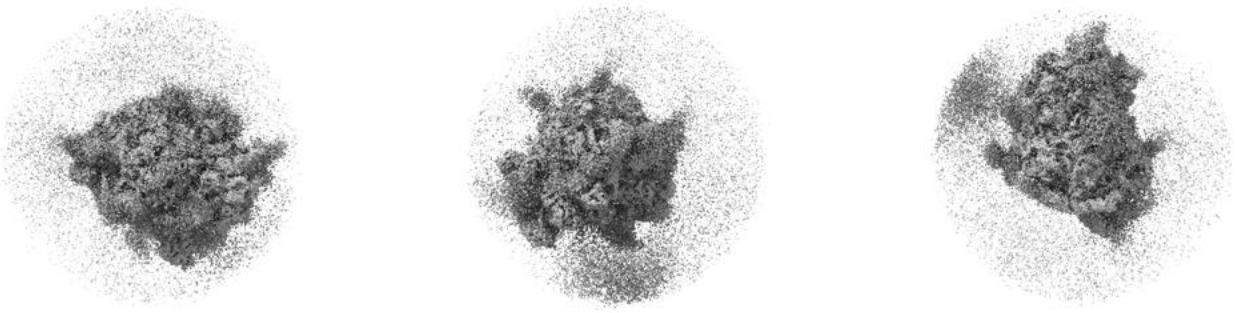


Z

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.

5.5 Orthogonal surface views (i)

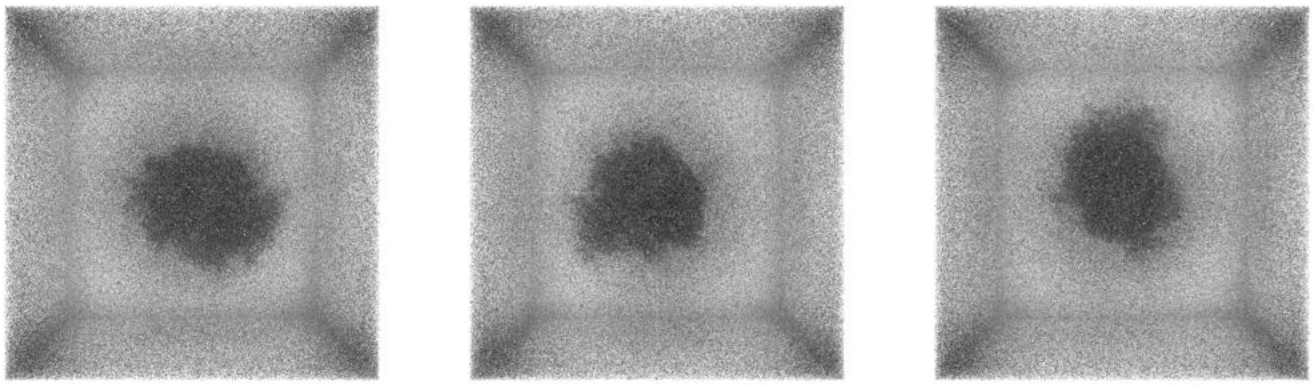
5.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.0792. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

5.5.2 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.

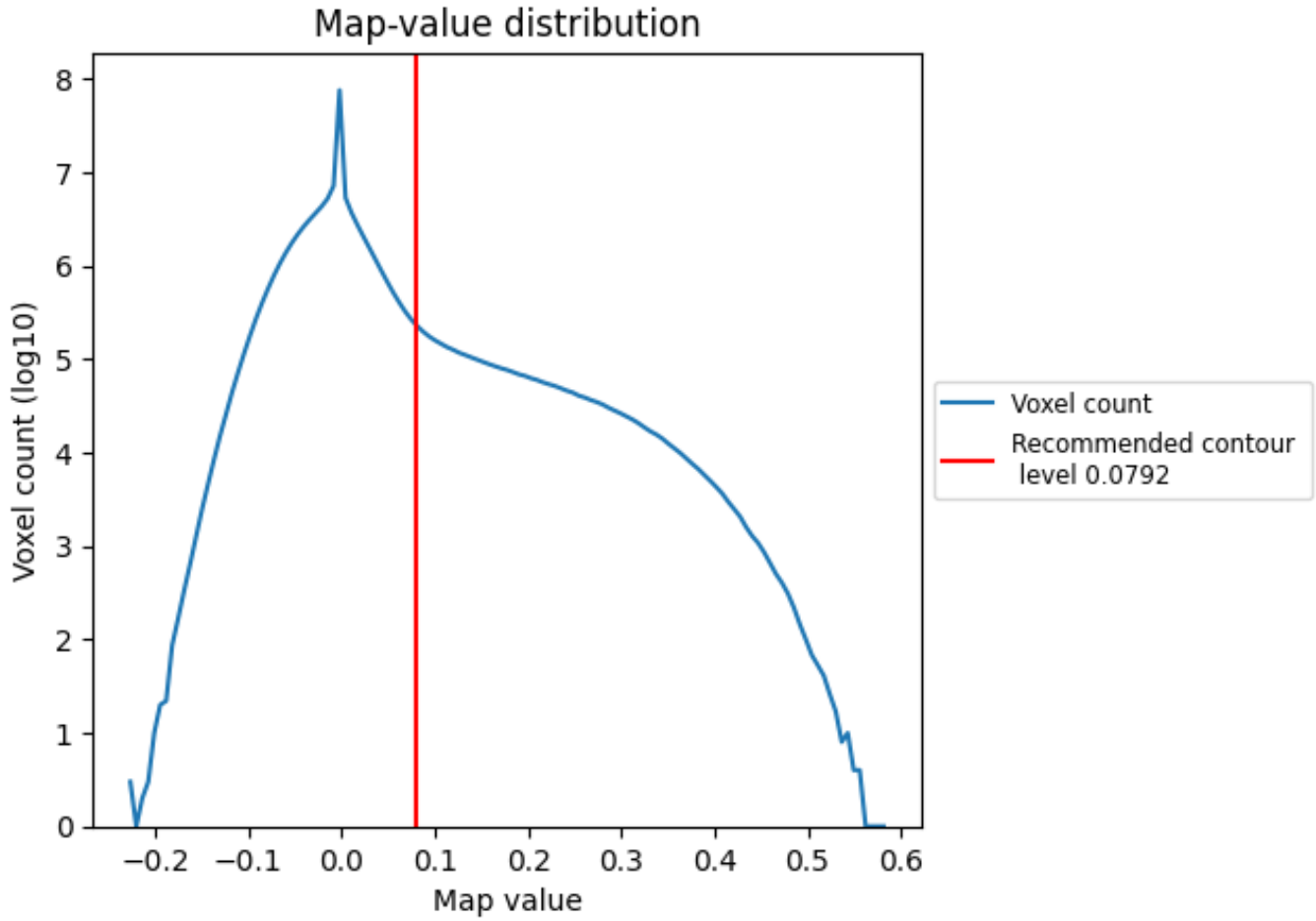
5.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

6 Map analysis

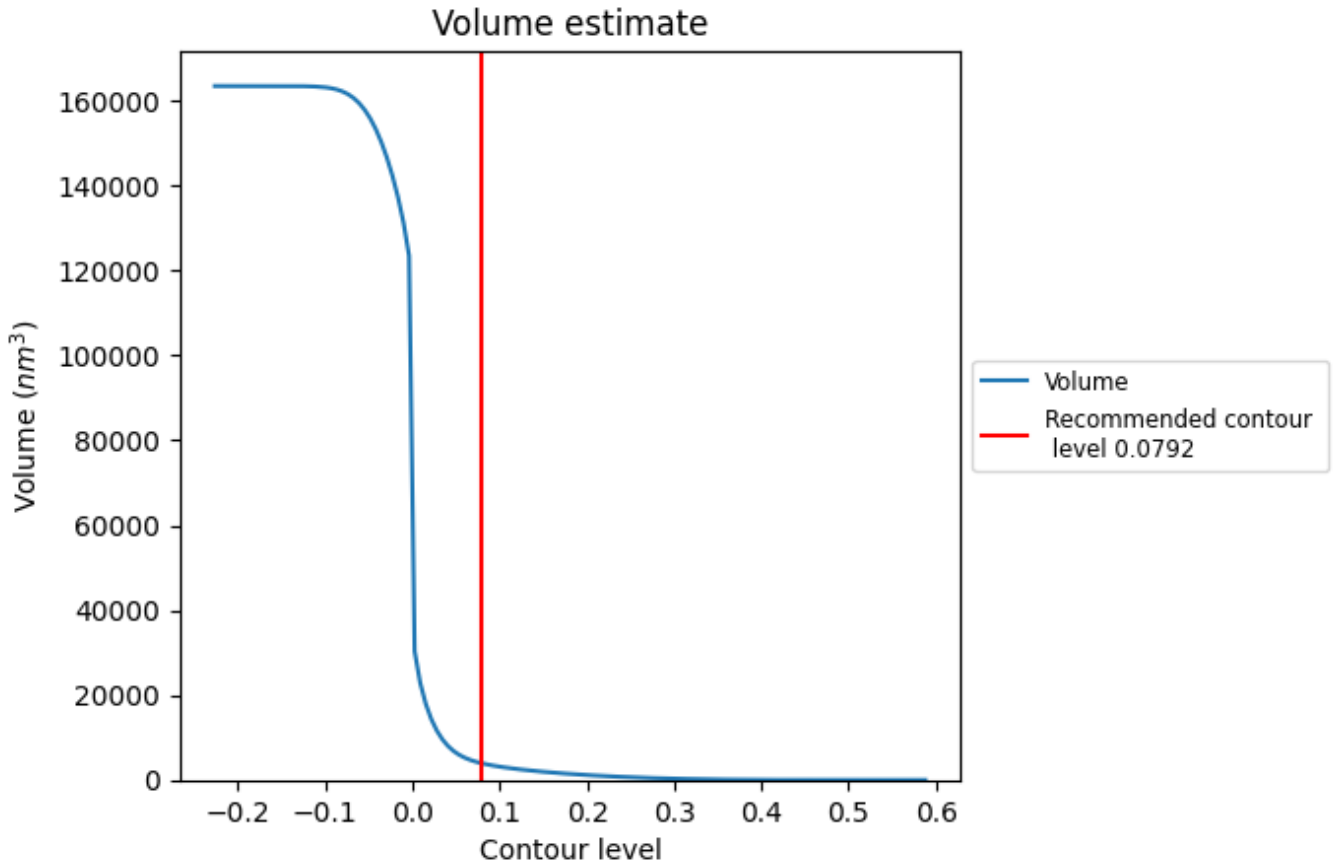
This section contains the results of statistical analysis of the map.

6.1 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.

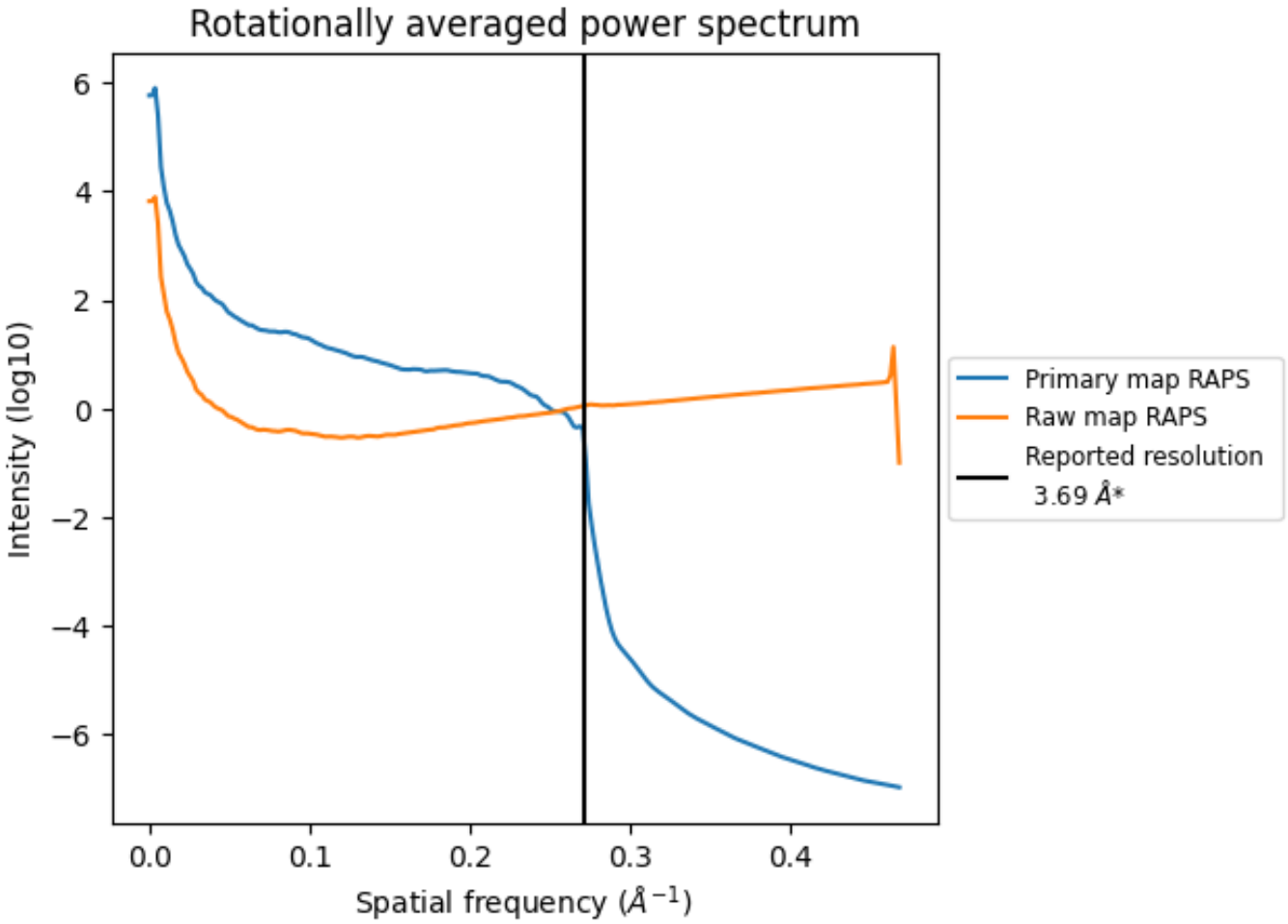
6.2 Volume estimate



The volume at the recommended contour level is 3944 nm^3; this corresponds to an approximate mass of 3563 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.

6.3 Rotationally averaged power spectrum (i)

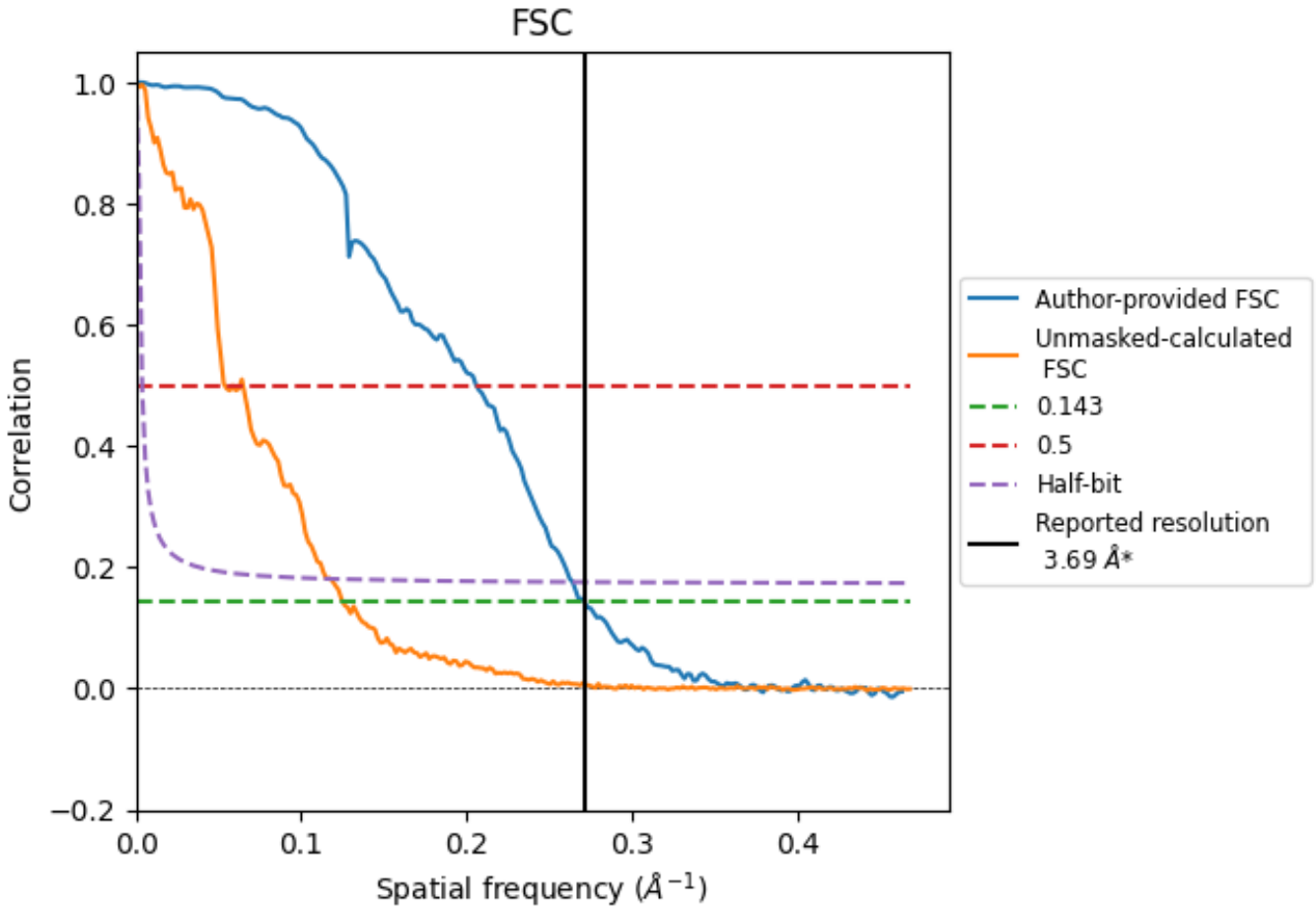


*Reported resolution corresponds to spatial frequency of 0.271 Å^{-1}

7 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.

7.1 FSC



*Reported resolution corresponds to spatial frequency of 0.271 Å^{-1}

7.2 Resolution estimates (i)

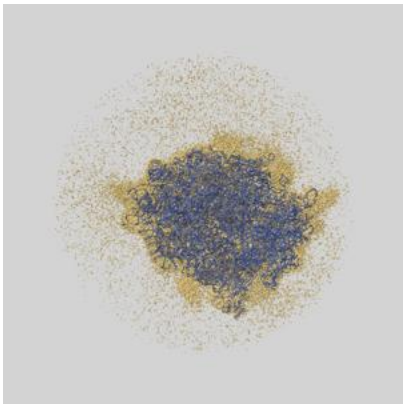
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.69	-	-
Author-provided FSC curve	3.69	4.86	3.79
Unmasked-calculated*	7.99	18.62	8.68

*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 7.99 differs from the reported value 3.69 by more than 10 %

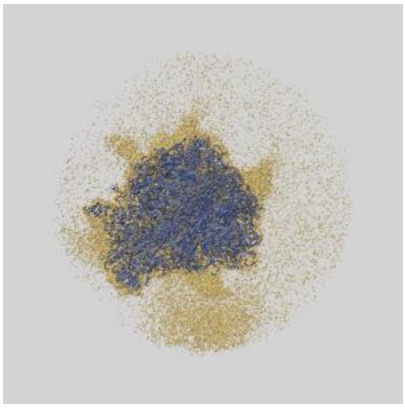
8 Map-model fit

This section contains information regarding the fit between EMDB map EMD-71343 and PDB model 9P7I. Per-residue inclusion information can be found in section ?? on page ??.

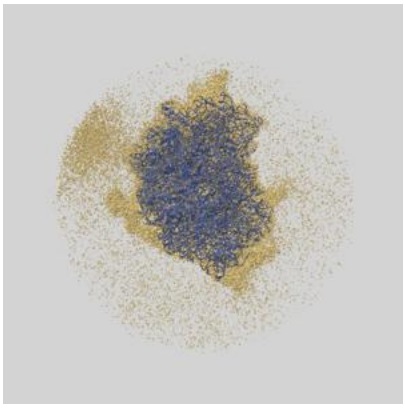
8.1 Map-model overlay



X



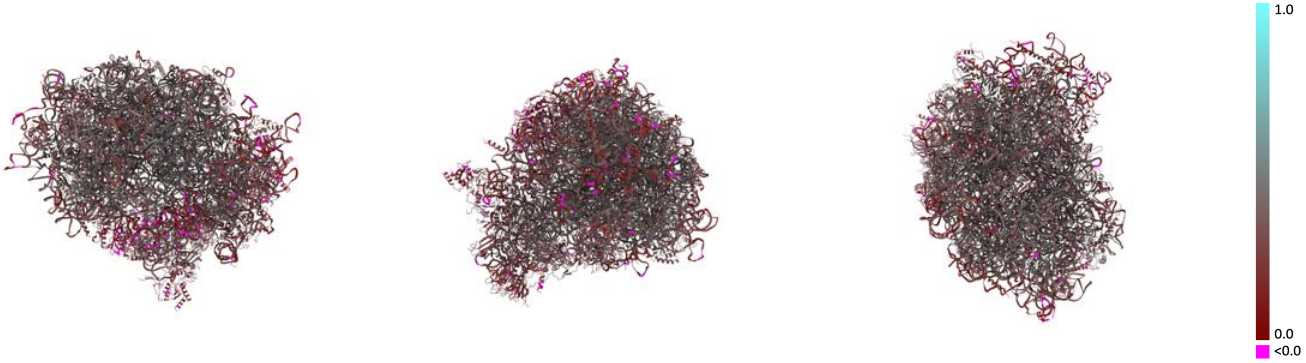
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0792 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.

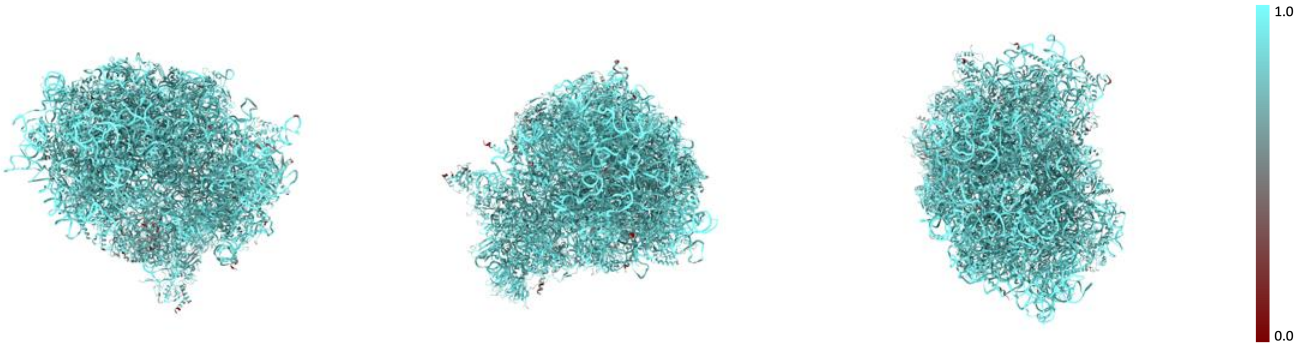
8.2 Q-score mapped to coordinate model (i)



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.

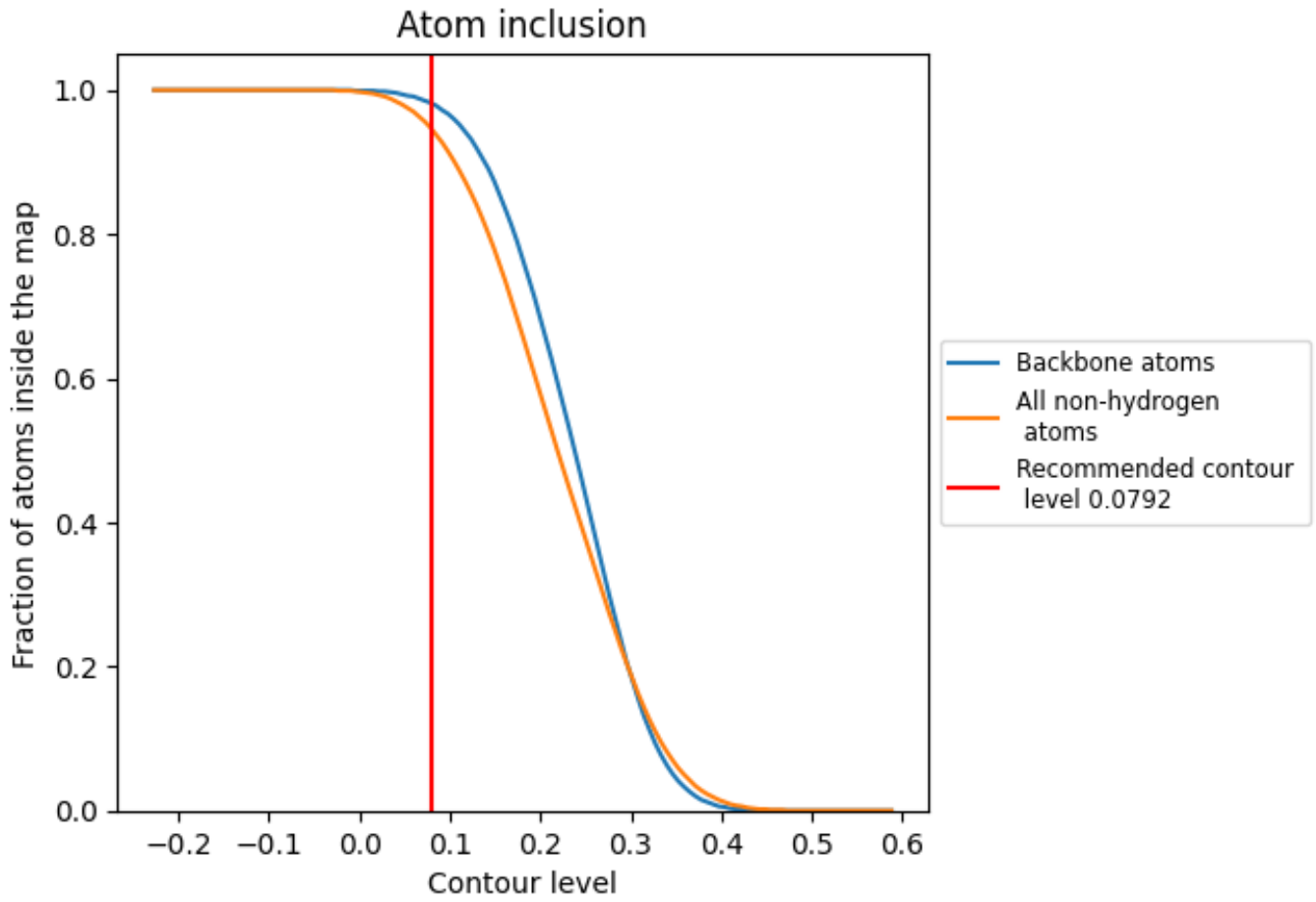
8.3 Atom inclusion mapped to coordinate model (i)



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 (0.0792).

8.4 Atom inclusion (i)



At the recommended contour level, 98% of all backbone atoms, 95% of all non-hydrogen atoms, are inside the map.

8.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.0792) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9470	0.3500
AT	0.9810	0.1780
CF	0.9350	0.1700
CI	0.6780	0.2330
L5	0.9890	0.3700
L7	0.9970	0.3910
L8	0.9920	0.3830
LA	0.9450	0.4280
LB	0.9070	0.3980
LC	0.9140	0.3970
LD	0.9090	0.3510
LE	0.8960	0.3490
LF	0.9080	0.3820
LG	0.8780	0.3450
LH	0.9090	0.3830
LI	0.9070	0.3860
LJ	0.8830	0.3320
LL	0.8980	0.3790
LM	0.9080	0.3730
LN	0.9340	0.4170
LO	0.9230	0.3860
LP	0.9250	0.4090
LQ	0.9210	0.4130
LR	0.8810	0.3510
LS	0.9480	0.4120
LT	0.9180	0.4020
LU	0.9110	0.3230
LV	0.9290	0.4220
LW	0.8550	0.2890
LX	0.9070	0.3910
LY	0.9340	0.3740
LZ	0.9190	0.3820
La	0.9410	0.4170
Lb	0.8650	0.3290
Lc	0.9000	0.3730

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Chain	Atom inclusion	Q-score
Ld	0.9230	0.3960
Le	0.9260	0.4080
Lf	0.9390	0.4280
Lg	0.9380	0.3990
Lh	0.8710	0.3500
Li	0.9050	0.3680
Lj	0.9510	0.4160
Lk	0.8730	0.3550
Ll	0.9460	0.3890
Lm	0.9230	0.3880
Ln	0.9140	0.3750
Lo	0.9140	0.4000
Lp	0.9350	0.4010
Lr	0.9190	0.4130
Ls	0.6770	0.1400
Lt	0.6410	0.1270
Pt	0.9650	0.3210
S2	0.9880	0.3450
SA	0.8910	0.3450
SB	0.8810	0.3630
SC	0.9210	0.3720
SD	0.8870	0.3160
SE	0.9150	0.3250
SF	0.8540	0.3020
SG	0.8760	0.2450
SH	0.8390	0.3010
SI	0.9030	0.3350
SJ	0.8780	0.3040
SK	0.9010	0.2680
SL	0.8790	0.3600
SM	0.7530	0.1680
SN	0.8910	0.3720
SO	0.9030	0.3690
SP	0.8620	0.2990
SQ	0.8890	0.3000
SR	0.8710	0.3050
SS	0.8450	0.2890
ST	0.8960	0.2960
SU	0.8890	0.2820
SV	0.9030	0.3470
SW	0.9230	0.3800
SX	0.9190	0.3570

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Chain	Atom inclusion	Q-score
SY	0.8410	0.2540
SZ	0.8150	0.2760
Sa	0.9300	0.3790
Sb	0.8870	0.3710
Sc	0.8660	0.3150
Sd	0.9320	0.3360
Se	0.8400	0.2610
Sf	0.8120	0.1890
Sg	0.8730	0.2350
Zt	0.9320	0.1530