



Full wwPDB EM Validation Report ⓘ

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PDB ID : 6ZMW
EMDB ID : EMD-11302
Title : Structure of a human 48S translational initiation complex
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Deposited on : 2020-07-04
Resolution : 3.70 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.dev92
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : **FAILED**
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : **FAILED**
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.70 Å.

There are no overall percentile quality scores available for this entry.

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

2 Entry composition [i](#)

There are 59 unique types of molecules in this entry. The entry contains 118155 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 protein called Eukaryotic translation initiation factor 3 subunit I.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
1	2	304	1493	885	304	304	0	0

- Molecule 2 is a protein called Eukaryotic translation initiation factor 3 subunit B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	1	588	3258	1986	633	634	5	0	0

- Molecule 3 is a protein called Eukaryotic translation initiation factor 3 subunit M.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	6	350	1917	1159	376	380	2	0	0

- Molecule 4 is a protein called Eukaryotic translation initiation factor 3 subunit F.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
4	4	257	1272	757	257	258	0	0

- Molecule 5 is a protein called Eukaryotic translation initiation factor 3 subunit A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	u	706	5383	3379	982	999	23	1	0

- Molecule 6 is a protein called Eukaryotic translation initiation factor 3 subunit E.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	v	384	2635	1657	477	489	12	0	0

- Molecule 7 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	S	230	1862	1164	371	320	7	0	0

- Molecule 8 is a protein called Eukaryotic translation initiation factor 3 subunit C.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	y	697	5470	3437	980	1018	35	0	0

- Molecule 9 is a protein called Eukaryotic translation initiation factor 3 subunit H.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
9	8	317	1571	936	317	318	0	0

- Molecule 10 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	G	177	1430	917	260	252	1	0	0

- Molecule 11 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	H	81	631	397	116	111	7	0	0

- Molecule 12 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	K	81	617	380	114	118	5	0	0

- Molecule 13 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	L	220	1707	1104	292	301	10	0	0

- Molecule 14 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	O	211	1715	1088	307	306	14	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	N	207	1633	1040	288	297	8	0	0

- Molecule 16 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	Q	99	792	492	165	130	5	0	0

- Molecule 17 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
17	P	133	997	610	196	185	6	0	0

- Molecule 18 is a protein called 40S ribosomal protein S13.

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

- Molecule 19 is a protein called Eukaryotic translation initiation factor 3 subunit D.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
19	x	421	2831	1746	521	555	9	0	0

- Molecule 20 is a protein called Eukaryotic translation initiation factor 3 subunit K.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
20	3	213	1057	631	213	213	0	0

- Molecule 21 is a protein called Eukaryotic translation initiation factor 3 subunit L.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	5	319	Total	C	N	O	0	0
			1581	943	319	319		

- Molecule 22 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms				AltConf	Trace
22	7	28	Total	C	O	P	0	0
			336	140	168	28		

- Molecule 23 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	9	24	Total	C	N	O	S	0	0
			230	139	62	26	3		

- Molecule 24 is a RNA chain called 18S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	A	1719	Total	C	N	O	P	0	0
			36670	16380	6574	11998	1718		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
25	B	142	Total	C	N	O	S	0	0
			1166	743	218	199	6		

- Molecule 26 is a protein called 40S ribosomal protein S4, X isoform.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	C	256	Total	C	N	O	S	0	0
			2035	1302	378	347	8		

- Molecule 27 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	D	177	Total	C	N	O	S	0	0
			1477	941	295	239	2		

- Molecule 28 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	E	140	Total	C	N	O	S	0	0
			1087	687	215	182	3		

- Molecule 29 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	F	47	Total	C	N	O	S	0	0
			378	231	85	61	1		

- Molecule 30 is a protein called Eukaryotic translation initiation factor 2 subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	r	275	Total	C	N	O	S	0	0
			2215	1398	387	418	12		

- Molecule 31 is a protein called 40S ribosomal protein S15a.

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

- Molecule 32 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	R	198	Total	C	N	O	S	0	0
			1627	1021	322	279	5		

- Molecule 33 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	T	125	Total	C	N	O	S	0	0
			1015	642	199	169	5		

- Molecule 34 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	V	184	Total	C	N	O	S	0	0
			1461	914	276	264	7		

- Molecule 35 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Y	141	Total	C	N	O	S	0	0
			1124	715	212	194	3		

- Molecule 36 is a protein called 40S ribosomal protein S3.

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

- Molecule 37 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	a	99	Total	C	N	O	S	0	0
			834	544	149	135	6		

- Molecule 38 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	b	110	Total	C	N	O	S	0	0
			913	580	168	158	7		

- Molecule 39 is a protein called Receptor of activated protein C kinase 1.

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
40	d	142	Total	C	N	O	S	0	0
			1105	692	213	197	3		

- Molecule 41 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	e	66	Total	C	N	O	S	0	0
			523	338	93	91	1		

- Molecule 42 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
42	f	142	1176	737	239	199	1	0	0

- Molecule 43 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
43	i	50	419	262	85	67	5	0	0

- Molecule 44 is a protein called Ubiquitin-40S ribosomal protein S27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
44	k	53	435	276	82	70	7	0	0

- Molecule 45 is a protein called 40S ribosomal protein S12.

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

- Molecule 46 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
46	n	63	498	302	101	93	2	0	0

- Molecule 47 is a protein called Eukaryotic translation initiation factor 3 subunit G.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
47	o	77	616	389	111	116	0	0

- Molecule 48 is a protein called Eukaryotic translation initiation factor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
48	p	85	691	438	125	126	2	0	0

- Molecule 49 is a protein called Eukaryotic translation initiation factor 1A, X-chromosomal.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
49	q	88	714	451	129	130	4	0	0

- Molecule 50 is a protein called Eukaryotic translation initiation factor 3 subunit J.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
50	z	160	795	475	160	160	0	0

- Molecule 51 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
51	M	131	1064	668	198	194	4	0	0

- Molecule 52 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
52	h	103	817	511	155	147	4	0	0

- Molecule 53 is a protein called Eukaryotic translation initiation factor 2 subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
53	s	138	1123	709	206	199	9	0	0

- Molecule 54 is a RNA chain called Initiator Met-tRNA-i.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
54	w	75	1604	717	298	515	74	0	0

- Molecule 55 is a protein called Eukaryotic translation initiation factor 2 subunit 3.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
55	t	356	1750	1038	356	356	0	0

- Molecule 56 is a protein called Eukaryotic initiation factor 4A-I.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
56	j	384	3073	1940	533	581	19	0	0

- Molecule 57 is a protein called Eukaryotic translation initiation factor 4 gamma 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
57	g	224	1848	1168	324	341	15	0	0

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
			Total	Zn	
58	Q	1	1	1	0
58	k	1	1	1	0

- Molecule 59 is MAGNESIUM ION (three-letter code: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
59	A	87	87	87	0
59	d	1	1	1	0
59	f	1	1	1	0

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

3 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	37870	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	107	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON III (4k x 4k)	Depositor

4 Model quality [i](#)

4.1 Standard geometry [i](#)

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

4.2 Too-close contacts [i](#)

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

4.3 Torsion angles [i](#)

4.3.1 Protein backbone [i](#)

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

4.3.2 Protein sidechains [i](#)

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

4.3.3 RNA [i](#)

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

4.4 Non-standard residues in protein, DNA, RNA chains [i](#)

28 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	$\# Z > 2$
24	OMG	A	509	59,24	18,26,27	1.09	3 (16%)	19,38,41	0.78	0
24	PSU	A	823	24	18,21,22	1.05	1 (5%)	22,30,33	0.68	0
24	OMC	A	517	24	19,22,23	0.46	0	26,31,34	0.41	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
24	OMG	A	644	24	18,26,27	1.08	3 (16%)	19,38,41	0.74	1 (5%)
24	OMC	A	174	59,24	19,22,23	0.43	0	26,31,34	0.44	0
24	5MU	A	814	24	19,22,23	0.45	0	28,32,35	0.50	0
24	JMH	A	1219	59,24	18,22,23	0.64	0	21,32,35	0.65	0
24	MA6	A	1850	24	18,26,27	0.84	1 (5%)	19,38,41	0.52	0
24	5MC	A	1374	24	18,22,23	0.44	0	26,32,35	0.61	0
24	OMU	A	116	24	19,22,23	0.39	0	26,31,34	0.51	0
24	A2M	A	1031	24	18,25,26	0.61	0	18,36,39	0.91	1 (5%)
24	MA6	A	1851	24	18,26,27	0.81	1 (5%)	19,38,41	0.64	0
24	PSU	A	822	24	18,21,22	1.04	2 (11%)	22,30,33	0.84	1 (4%)
24	PSU	A	119	24	18,21,22	0.97	1 (5%)	22,30,33	0.69	0
24	OMU	A	121	24	19,22,23	0.44	0	26,31,34	0.51	0
24	OMG	A	683	24	18,26,27	1.06	3 (16%)	19,38,41	0.92	1 (5%)
24	PSU	A	1243	24	18,21,22	1.00	1 (5%)	22,30,33	0.70	0
24	UR3	A	1830	24	19,22,23	0.41	0	26,32,35	1.00	2 (7%)
24	A2M	A	1678	24	18,25,26	0.61	0	18,36,39	0.76	0
24	6MZ	A	1832	59,24	18,25,26	0.79	0	16,36,39	0.74	1 (6%)
24	A2M	A	166	24	18,25,26	0.59	0	18,36,39	0.96	1 (5%)
24	OMC	A	1703	24	19,22,23	0.44	0	26,31,34	0.49	0
24	A2M	A	484	24	18,25,26	0.65	1 (5%)	18,36,39	0.76	1 (5%)
24	A2M	A	27	59,24	18,25,26	0.63	0	18,36,39	0.77	1 (5%)
24	A2M	A	668	59,24	18,25,26	0.66	0	18,36,39	0.83	1 (5%)
24	PSU	A	612	24	18,21,22	1.10	2 (11%)	22,30,33	0.75	1 (4%)
24	A2M	A	159	24	18,25,26	0.64	1 (5%)	18,36,39	0.76	1 (5%)
24	PSU	A	1081	24	18,21,22	1.04	2 (11%)	22,30,33	0.82	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
24	OMG	A	509	59,24	-	0/5/27/28	0/3/3/3
24	PSU	A	823	24	-	0/7/25/26	0/2/2/2
24	OMC	A	517	24	-	0/9/27/28	0/2/2/2
24	OMG	A	644	24	-	1/5/27/28	0/3/3/3
24	OMC	A	174	59,24	-	0/9/27/28	0/2/2/2
24	5MU	A	814	24	-	0/7/25/26	0/2/2/2
24	JMH	A	1219	59,24	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	MA6	A	1850	24	-	3/7/29/30	0/3/3/3
24	5MC	A	1374	24	-	0/7/25/26	0/2/2/2
24	OMU	A	116	24	-	0/9/27/28	0/2/2/2
24	A2M	A	1031	24	-	0/5/27/28	0/3/3/3
24	MA6	A	1851	24	-	5/7/29/30	0/3/3/3
24	PSU	A	822	24	-	0/7/25/26	0/2/2/2
24	PSU	A	119	24	-	0/7/25/26	0/2/2/2
24	OMU	A	121	24	-	0/9/27/28	0/2/2/2
24	OMG	A	683	24	-	0/5/27/28	0/3/3/3
24	PSU	A	1243	24	-	0/7/25/26	0/2/2/2
24	UR3	A	1830	24	-	2/7/25/26	0/2/2/2
24	A2M	A	1678	24	-	0/5/27/28	0/3/3/3
24	6MZ	A	1832	59,24	-	2/5/27/28	0/3/3/3
24	A2M	A	166	24	-	0/5/27/28	0/3/3/3
24	OMC	A	1703	24	-	0/9/27/28	0/2/2/2
24	A2M	A	484	24	-	0/5/27/28	0/3/3/3
24	A2M	A	27	59,24	-	0/5/27/28	0/3/3/3
24	A2M	A	668	59,24	-	2/5/27/28	0/3/3/3
24	PSU	A	612	24	-	0/7/25/26	0/2/2/2
24	A2M	A	159	24	-	2/5/27/28	0/3/3/3
24	PSU	A	1081	24	-	1/7/25/26	0/2/2/2

All (22) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	A	1243	PSU	C6-C5	3.37	1.39	1.35
24	A	823	PSU	C6-C5	3.35	1.39	1.35
24	A	119	PSU	C6-C5	3.23	1.39	1.35
24	A	612	PSU	C6-C5	3.22	1.39	1.35
24	A	1081	PSU	C6-C5	3.20	1.39	1.35
24	A	822	PSU	C6-C5	3.14	1.39	1.35
24	A	683	OMG	C5-C6	-2.85	1.41	1.47
24	A	509	OMG	C5-C6	-2.84	1.41	1.47
24	A	644	OMG	C5-C6	-2.75	1.41	1.47
24	A	612	PSU	O4'-C1'	-2.52	1.40	1.43
24	A	1081	PSU	O4'-C1'	-2.31	1.40	1.43
24	A	822	PSU	O4'-C1'	-2.26	1.40	1.43
24	A	1850	MA6	C8-N7	-2.22	1.30	1.34
24	A	509	OMG	C8-N7	-2.15	1.31	1.35
24	A	683	OMG	C8-N7	-2.13	1.31	1.35
24	A	644	OMG	C8-N7	-2.10	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	A	484	A2M	C8-N7	-2.10	1.31	1.34
24	A	509	OMG	C5-C4	-2.09	1.37	1.43
24	A	644	OMG	C5-C4	-2.06	1.37	1.43
24	A	683	OMG	C5-C4	-2.06	1.37	1.43
24	A	159	A2M	C8-N7	-2.06	1.31	1.34
24	A	1851	MA6	C6-N1	2.02	1.36	1.33

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	A	1832	6MZ	C2-N1-C6	2.44	118.68	116.59
24	A	668	A2M	C5-C6-N6	2.32	123.88	120.35
24	A	1031	A2M	C5-C6-N6	2.31	123.86	120.35
24	A	822	PSU	O4'-C1'-C2'	2.28	108.36	105.14
24	A	1830	UR3	C6-N1-C2	-2.25	119.77	121.79
24	A	166	A2M	C5-C6-N6	2.24	123.75	120.35
24	A	612	PSU	O4'-C1'-C2'	2.23	108.29	105.14
24	A	159	A2M	C5-C6-N6	2.20	123.69	120.35
24	A	1830	UR3	C1'-N1-C2	2.16	120.63	116.99
24	A	27	A2M	C5-C6-N6	2.11	123.56	120.35
24	A	644	OMG	O6-C6-C5	2.07	128.42	124.37
24	A	484	A2M	C5-C6-N6	2.05	123.47	120.35
24	A	683	OMG	O6-C6-C5	2.01	128.31	124.37

There are no chirality outliers.

All (18) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
24	A	1832	6MZ	N1-C6-N6-C9
24	A	1850	MA6	C5-C6-N6-C10
24	A	1850	MA6	N1-C6-N6-C10
24	A	1851	MA6	O4'-C4'-C5'-O5'
24	A	1851	MA6	C5-C6-N6-C10
24	A	668	A2M	O4'-C4'-C5'-O5'
24	A	1851	MA6	C3'-C4'-C5'-O5'
24	A	668	A2M	C3'-C4'-C5'-O5'
24	A	1851	MA6	N1-C6-N6-C10
24	A	1830	UR3	O4'-C1'-N1-C2
24	A	159	A2M	C3'-C4'-C5'-O5'
24	A	1830	UR3	O4'-C1'-N1-C6
24	A	159	A2M	O4'-C4'-C5'-O5'
24	A	1850	MA6	C5-C6-N6-C9

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Mol	Chain	Res	Type	Atoms
24	A	1851	MA6	C5-C6-N6-C9
24	A	644	OMG	C4'-C5'-O5'-P
24	A	1081	PSU	C4'-C5'-O5'-P
24	A	1832	6MZ	C5-C6-N6-C9

There are no ring outliers.

No monomer is involved in short contacts.

4.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

4.6 Ligand geometry [i](#)

Of 91 ligands modelled in this entry, 91 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

4.7 Other polymers [i](#)

There are no such residues in this entry.

4.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

5 Map visualisation

This section contains visualisations of the EMDB entry EMD-11302. 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

This section was not generated.

5.2 Central slices

This section was not generated.

5.3 Largest variance slices

This section was not generated.

5.4 Orthogonal standard-deviation projections (False-color)

This section was not generated.

5.5 Orthogonal surface views

This section was not generated.

5.6 Mask visualisation

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

This section was not generated.

6.2 Volume estimate versus contour level

This section was not generated.

6.3 Rotationally averaged power spectrum

This section was not generated. The rotationally averaged power spectrum had issues being displayed.

7 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

8 Map-model fit

This section was not generated.