



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 9, 2026 – 06:41 AM UTC

PDB ID : 5RBT / pdb_00005rbt
Title : PanDDA analysis group deposition – Endothiapepsin changed state model for fragment F2X-Entry Library C11b
Authors : Weiss, M.S.; Wollenhaupt, J.; Metz, A.; Barthel, T.; Lima, G.M.A.; Heine, A.; Mueller, U.; Klebe, G.
Deposited on : 2020-03-24
Resolution : 1.12 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ 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:

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

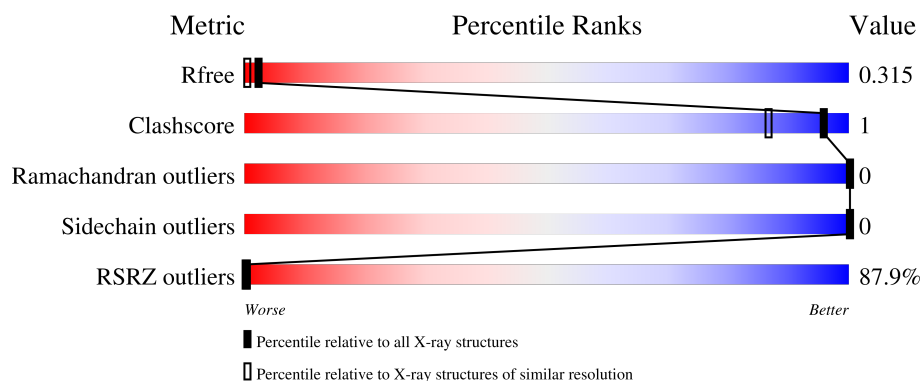
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 1.12 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1985 (1.14-1.10)
Clashscore	190562	2021 (1.14-1.10)
Ramachandran outliers	187476	1978 (1.14-1.10)
Sidechain outliers	187428	1974 (1.14-1.10)
RSRZ outliers	180081	1984 (1.14-1.10)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	419	

2 Entry composition [i](#)

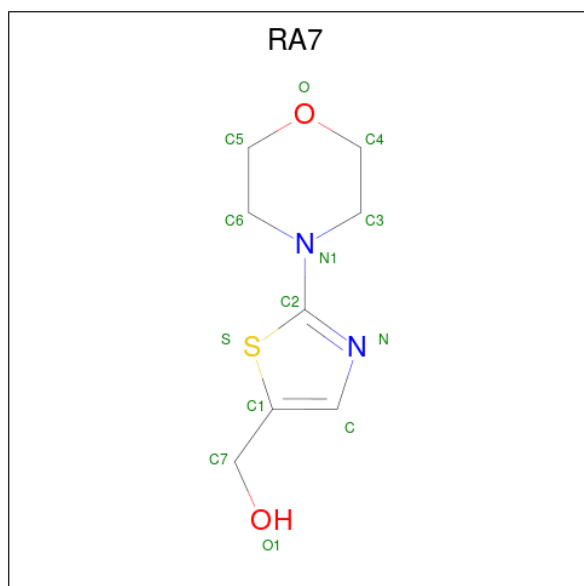
There are 8 unique types of molecules in this entry. The entry contains 3672 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Endothiapepsin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	330	3304	2079	510	713	2	11	48	0

- Molecule 2 is [2-(morpholin-4-yl)-1,3-thiazol-5-yl]methanol (CCD ID: RA7) (formula: C₈H₁₂N₂O₂S) (labeled as "Ligand of Interest" by depositor).



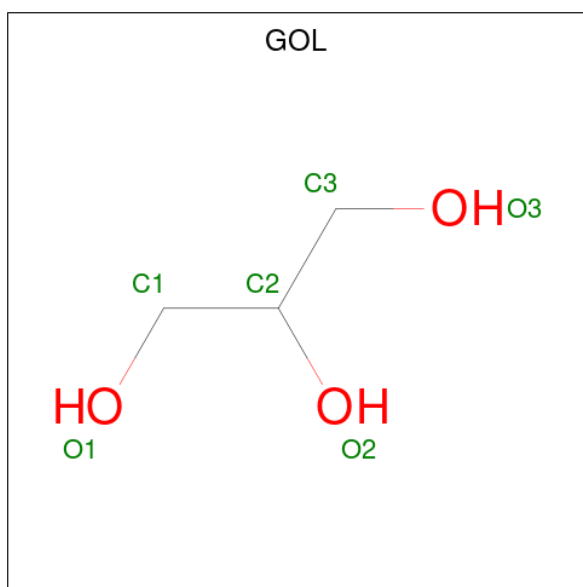
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	S		
2	A	1	26	16	4	4	2	0	1

- Molecule 3 is DIMETHYL SULFOXIDE (CCD ID: DMS) (formula: C₂H₆OS).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	A	1	Total	C	O	S	0	0
			4	2	1	1		
3	A	1	Total	C	O	S	0	0
			4	2	1	1		
3	A	1	Total	C	O	S	0	0
			4	2	1	1		

- Molecule 4 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$).



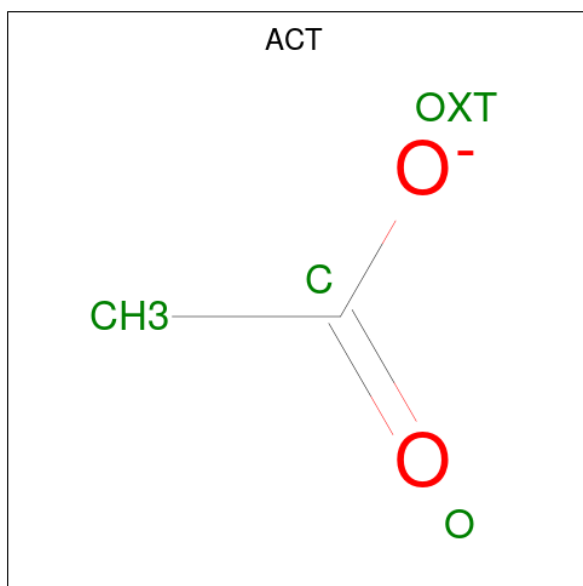
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total	C	O	0	0
			6	3	3		

Continued on next page...

Continued from previous page...

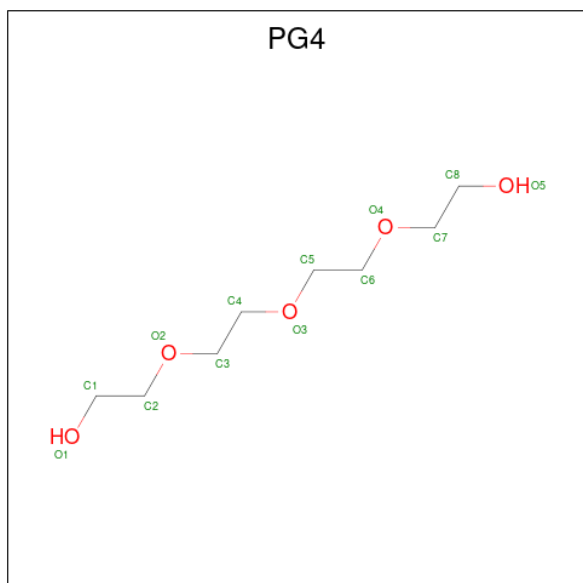
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total	C	O	0	1
			12	6	6		

- Molecule 5 is ACETATE ION (CCD ID: ACT) (formula: $C_2H_3O_2$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	A	1	Total	C	O	0	0
			4	2	2		

- Molecule 6 is TETRAETHYLENE GLYCOL (CCD ID: PG4) (formula: $C_8H_{18}O_5$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	A	1	Total	C	O	0	0
			13	8	5		

- Molecule 7 is SODIUM ION (CCD ID: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	A	1	Total	Na	0	0
			1	1		

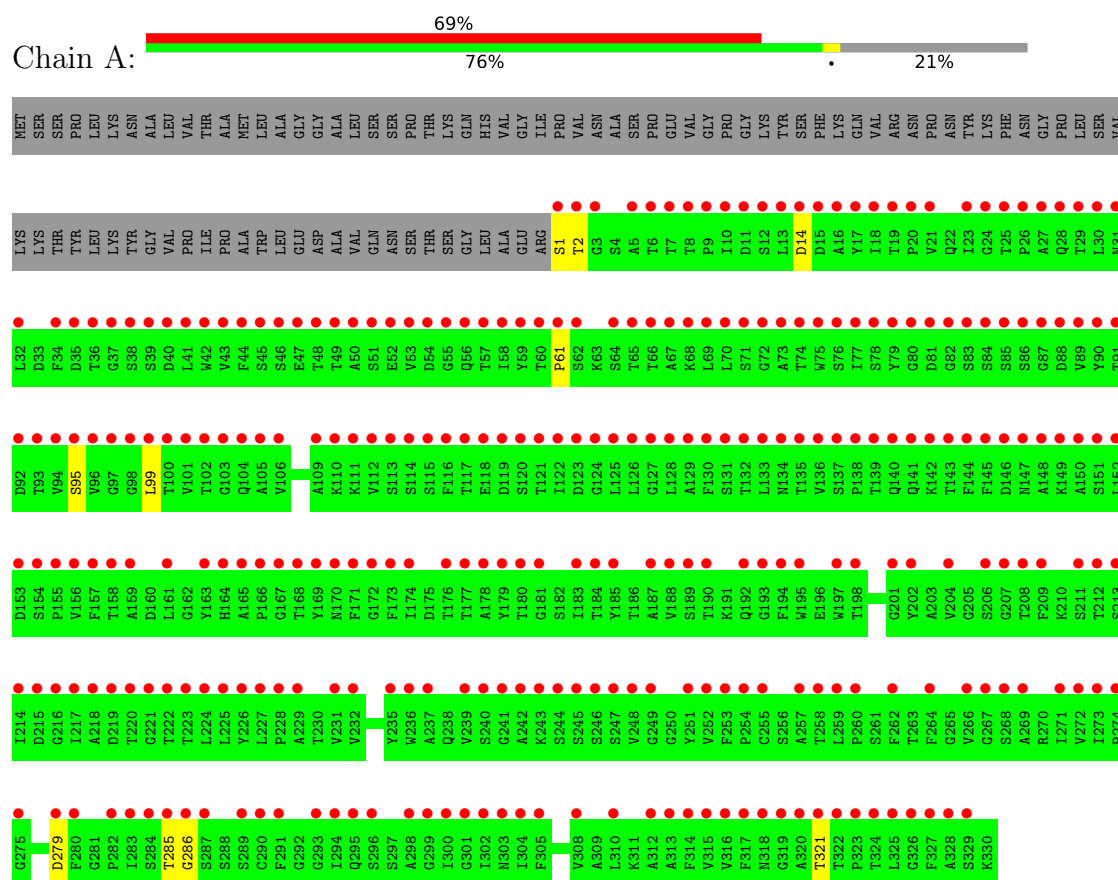
- Molecule 8 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
8	A	263	Total	O	0	15
			294	294		

3 Residue-property plots

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

• Molecule 1: Endothiapepsin



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	45.27Å 73.16Å 52.63Å 90.00° 109.25° 90.00°	Depositor
Resolution (Å)	49.74 – 1.12 49.69 – 1.12	Depositor EDS
% Data completeness (in resolution range)	98.5 (49.74-1.12) 98.6 (49.69-1.12)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.96 (at 1.12Å)	Xtriage
Refinement program	REFMAC 5.8.0238, PHENIX 1.16.3549	Depositor
R, R_{free}	0.164 , 0.164 0.311 , 0.315	Depositor DCC
R_{free} test set	5946 reflections (4.83%)	wwPDB-VP
Wilson B-factor (Å ²)	14.0	Xtriage
Anisotropy	0.027	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.37 , 29.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	3672	wwPDB-VP
Average B, all atoms (Å ²)	13.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.97% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: GOL, ACT, DMS, RA7, NA, PG4

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	1.07	3/3378 (0.1%)	0.91	3/4613 (0.1%)

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	286	GLY	C-O	-6.35	1.15	1.24
1	A	285	THR	N-CA	-5.23	1.39	1.46
1	A	61	PRO	C-O	-5.09	1.17	1.24

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	321	THR	CA-C-O	-5.51	115.01	120.90
1	A	321	THR	O-C-N	5.37	127.67	122.09
1	A	14	ASP	CA-CB-CG	5.06	117.66	112.60

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3304	0	3090	4	0
2	A	26	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	A	12	0	18	2	0
4	A	18	0	24	1	0
5	A	4	0	3	1	0
6	A	13	0	18	0	0
7	A	1	0	0	0	0
8	A	294	0	0	3	0
All	All	3672	0	3153	7	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 1.

All (7) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:406[B]:GOL:O2	8:A:501:HOH:O	1.91	0.85
1:A:279[B]:ASP:OD1	5:A:407:ACT:H1	1.85	0.76
3:A:404:DMS:H13	8:A:566:HOH:O	2.07	0.55
3:A:404:DMS:C1	8:A:566:HOH:O	2.58	0.51
1:A:1[B]:SER:C	1:A:2[B]:THR:HG23	2.45	0.42
1:A:95[A]:SER:HA	1:A:99[A]:LEU:O	2.21	0.41
1:A:95[B]:SER:HA	1:A:99[B]:LEU:O	2.21	0.41

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	465/419 (111%)	458 (98%)	7 (2%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	359/336 (107%)	359 (100%)	0	100	100

There are no protein residues with a non-rotameric sidechain to report.

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	31	ASN
1	A	140	GLN
1	A	303	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 11 ligands modelled in this entry, 1 is monoatomic - leaving 10 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	$\# Z > 2$
3	DMS	A	403	-	3,3,3	0.19	0	3,3,3	0.40	0
3	DMS	A	404	-	3,3,3	0.14	0	3,3,3	0.30	0
4	GOL	A	406[B]	-	5,5,5	0.11	0	5,5,5	0.36	0
5	ACT	A	407	-	3,3,3	1.76	1 (33%)	3,3,3	0.89	0
6	PG4	A	408	7	12,12,12	0.14	0	11,11,11	0.28	0
4	GOL	A	406[A]	-	5,5,5	0.17	0	5,5,5	0.68	0
4	GOL	A	405	-	5,5,5	0.20	0	5,5,5	0.55	0
2	RA7	A	401[C]	-	14,14,14	0.53	0	17,18,18	0.98	0
3	DMS	A	402	-	3,3,3	0.47	0	3,3,3	0.20	0
2	RA7	A	401[D]	-	14,14,14	0.52	0	17,18,18	0.95	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
4	GOL	A	406[B]	-	-	2/4/4/4	-
6	PG4	A	408	7	-	0/10/10/10	-
4	GOL	A	405	-	-	0/4/4/4	-
2	RA7	A	401[C]	-	-	0/6/14/14	0/2/2/2
4	GOL	A	406[A]	-	-	3/4/4/4	-
2	RA7	A	401[D]	-	-	0/6/14/14	0/2/2/2

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	407	ACT	CH3-C	2.63	1.59	1.49

There are no bond angle outliers.

There are no chirality outliers.

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	406[B]	GOL	O1-C1-C2-C3
4	A	406[A]	GOL	C1-C2-C3-O3
4	A	406[B]	GOL	O1-C1-C2-O2

Continued on next page...

Continued from previous page...

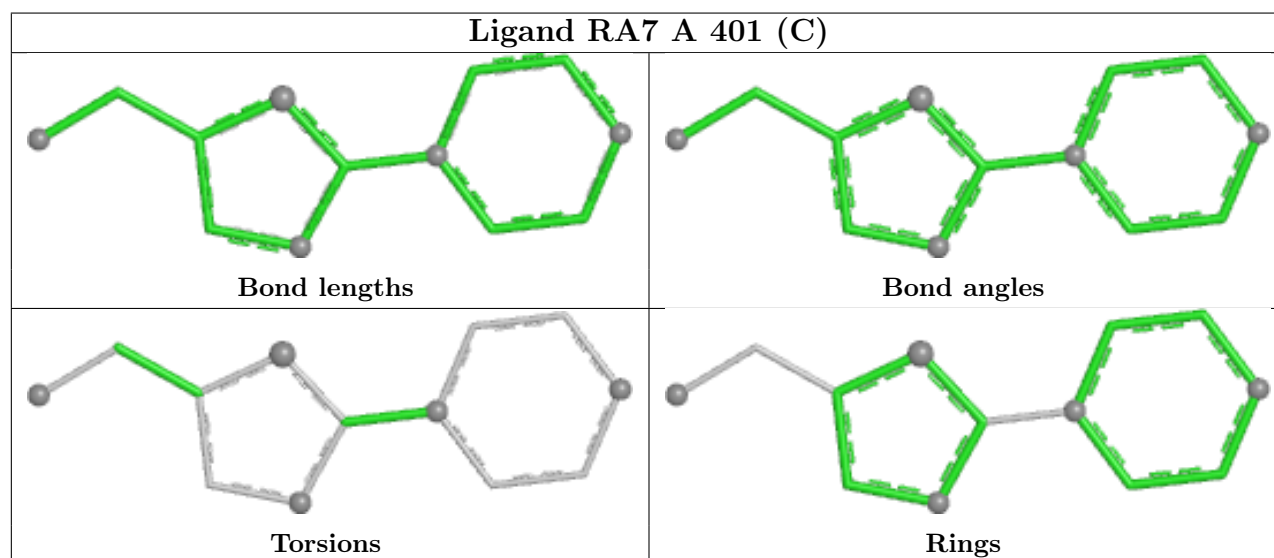
Mol	Chain	Res	Type	Atoms
4	A	406[A]	GOL	O1-C1-C2-O2
4	A	406[A]	GOL	O2-C2-C3-O3

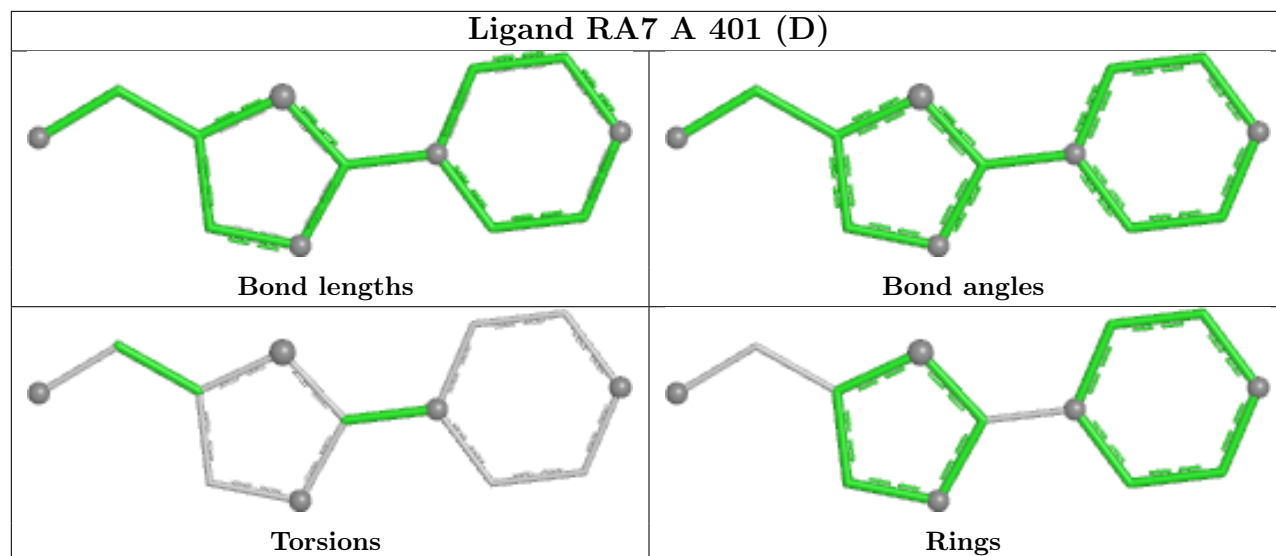
There are no ring outliers.

3 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	404	DMS	2	0
4	A	406[B]	GOL	1	0
5	A	407	ACT	1	0

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





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	330/419 (78%)	3.52	290 (87%) 0 0	2, 11, 18, 26	67 (20%)

All (290) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	150	ALA	13.8
1	A	147	ASN	9.9
1	A	134	ASN	9.4
1	A	321	THR	8.2
1	A	69	LEU	8.1
1	A	58	ILE	7.7
1	A	322	THR	7.1
1	A	300[A]	ILE	7.0
1	A	115	SER	6.8
1	A	75	TRP	6.8
1	A	136	VAL	6.7
1	A	49	THR	6.7
1	A	89	VAL	6.3
1	A	138	PRO	6.2
1	A	208	THR	6.2
1	A	87	GLY	6.1
1	A	285	THR	6.0
1	A	67	ALA	6.0
1	A	246[A]	SER	5.9
1	A	77	ILE	5.9
1	A	74	THR	5.9
1	A	21	VAL	5.8
1	A	139	THR	5.8
1	A	43	VAL	5.6
1	A	151	SER	5.6
1	A	16	ALA	5.5
1	A	135	THR	5.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	109	ALA	5.4
1	A	112	VAL	5.4
1	A	59	TYR	5.4
1	A	247[A]	SER	5.3
1	A	156	VAL	5.3
1	A	65	THR	5.2
1	A	130	PHE	5.2
1	A	53	VAL	5.2
1	A	122	ILE	5.2
1	A	78	SER	5.2
1	A	90	TYR	5.2
1	A	146[A]	ASP	5.2
1	A	70	LEU	5.2
1	A	319	GLY	5.2
1	A	48	THR	5.1
1	A	117	THR	5.1
1	A	51	SER	5.1
1	A	85	SER	5.0
1	A	209	PHE	5.0
1	A	64	SER	4.9
1	A	44	PHE	4.9
1	A	91	THR	4.9
1	A	68[A]	LYS	4.9
1	A	42	TRP	4.9
1	A	152	LEU	4.9
1	A	114	SER	4.9
1	A	79	TYR	4.8
1	A	100	THR	4.8
1	A	26	PRO	4.8
1	A	145	PHE	4.8
1	A	121	THR	4.7
1	A	62	SER	4.7
1	A	120	SER	4.7
1	A	302	ILE	4.7
1	A	116	PHE	4.7
1	A	113	SER	4.6
1	A	301	GLY	4.6
1	A	101	VAL	4.6
1	A	50	ALA	4.6
1	A	249[A]	GLY	4.6
1	A	144	PHE	4.5
1	A	17	TYR	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	66	THR	4.5
1	A	82	GLY	4.5
1	A	299[A]	GLY	4.5
1	A	137	SER	4.5
1	A	13	LEU	4.4
1	A	133	LEU	4.4
1	A	148	ALA	4.4
1	A	283[A]	ILE	4.4
1	A	18	ILE	4.4
1	A	174[A]	ILE	4.4
1	A	60	THR	4.4
1	A	176	THR	4.4
1	A	298[A]	ALA	4.3
1	A	102	THR	4.2
1	A	55	GLY	4.2
1	A	10	ILE	4.2
1	A	72	GLY	4.2
1	A	103	GLY	4.1
1	A	99[A]	LEU	4.1
1	A	73	ALA	4.1
1	A	12	SER	4.1
1	A	252[A]	VAL	4.1
1	A	255	CYS	4.1
1	A	27	ALA	4.1
1	A	190	THR	4.0
1	A	106	VAL	4.0
1	A	119	ASP	4.0
1	A	232	VAL	4.0
1	A	149[A]	LYS	4.0
1	A	153	ASP	4.0
1	A	195	TRP	4.0
1	A	236[A]	TRP	4.0
1	A	6	THR	4.0
1	A	83	SER	4.0
1	A	323	PRO	4.0
1	A	32	LEU	3.9
1	A	239	VAL	3.9
1	A	129	ALA	3.9
1	A	157	PHE	3.9
1	A	84	SER	3.9
1	A	86	SER	3.9
1	A	313	ALA	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	94	VAL	3.9
1	A	96[A]	VAL	3.9
1	A	57	THR	3.8
1	A	71[A]	SER	3.8
1	A	269	ALA	3.8
1	A	125	LEU	3.8
1	A	24	GLY	3.8
1	A	248[A]	VAL	3.8
1	A	142	LYS	3.7
1	A	183	ILE	3.7
1	A	188	VAL	3.7
1	A	132	THR	3.7
1	A	177	THR	3.7
1	A	173	PHE	3.7
1	A	320	ALA	3.7
1	A	163	TYR	3.7
1	A	30	LEU	3.7
1	A	80	GLY	3.7
1	A	164	HIS	3.7
1	A	221	GLY	3.6
1	A	168	THR	3.6
1	A	34	PHE	3.6
1	A	253	PHE	3.6
1	A	131	SER	3.6
1	A	20[A]	PRO	3.6
1	A	88	ASP	3.6
1	A	327	PHE	3.6
1	A	93	THR	3.5
1	A	222	THR	3.5
1	A	329	SER	3.5
1	A	155	PRO	3.5
1	A	167	GLY	3.5
1	A	201	GLY	3.5
1	A	118	GLU	3.5
1	A	204	VAL	3.5
1	A	316	VAL	3.5
1	A	46	SER	3.5
1	A	271	ILE	3.5
1	A	11	ASP	3.5
1	A	165	ALA	3.5
1	A	227	LEU	3.4
1	A	258	THR	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	3[A]	GLY	3.4
1	A	226	TYR	3.4
1	A	192	GLN	3.4
1	A	81	ASP	3.4
1	A	154[A]	SER	3.4
1	A	245[A]	SER	3.4
1	A	225	LEU	3.4
1	A	305	PHE	3.3
1	A	197	TRP	3.3
1	A	284	SER	3.3
1	A	123	ASP	3.3
1	A	315	VAL	3.3
1	A	159	ALA	3.3
1	A	318	ASN	3.3
1	A	61	PRO	3.3
1	A	325[A]	LEU	3.3
1	A	266	VAL	3.3
1	A	54	ASP	3.3
1	A	179	TYR	3.3
1	A	294	ILE	3.2
1	A	1[A]	SER	3.2
1	A	141	GLN	3.2
1	A	161	LEU	3.2
1	A	279[A]	ASP	3.2
1	A	25	THR	3.2
1	A	23	ILE	3.2
1	A	170	ASN	3.2
1	A	8	THR	3.1
1	A	143	THR	3.1
1	A	317	PHE	3.1
1	A	31	ASN	3.1
1	A	52	GLU	3.1
1	A	326	GLY	3.1
1	A	229	ALA	3.1
1	A	324	THR	3.1
1	A	251[A]	TYR	3.1
1	A	231	VAL	3.1
1	A	19	THR	3.1
1	A	76	SER	3.1
1	A	193	GLY	3.0
1	A	308	VAL	3.0
1	A	7	THR	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	180	THR	3.0
1	A	41	LEU	3.0
1	A	241	GLY	3.0
1	A	194	PHE	3.0
1	A	262	PHE	3.0
1	A	2[A]	THR	3.0
1	A	178	ALA	3.0
1	A	171	PHE	2.9
1	A	314	PHE	2.9
1	A	95[A]	SER	2.9
1	A	111	LYS	2.9
1	A	35	ASP	2.9
1	A	282	PRO	2.9
1	A	47	GLU	2.9
1	A	45	SER	2.9
1	A	37	GLY	2.9
1	A	216	GLY	2.9
1	A	220	THR	2.9
1	A	304	ILE	2.8
1	A	189	SER	2.8
1	A	296	SER	2.8
1	A	207	GLY	2.8
1	A	215[A]	ASP	2.8
1	A	228	PRO	2.8
1	A	237[A]	ALA	2.8
1	A	291[A]	PHE	2.8
1	A	213	SER	2.8
1	A	202	TYR	2.8
1	A	14	ASP	2.8
1	A	280	PHE	2.8
1	A	240[A]	SER	2.7
1	A	105	ALA	2.7
1	A	124	GLY	2.7
1	A	126	LEU	2.7
1	A	218	ALA	2.7
1	A	140	GLN	2.7
1	A	185	TYR	2.7
1	A	212	THR	2.7
1	A	97[A]	GLY	2.7
1	A	98[A]	GLY	2.7
1	A	242[A]	ALA	2.7
1	A	268[A]	SER	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	328	ALA	2.7
1	A	127	GLY	2.6
1	A	217	ILE	2.6
1	A	5[A]	ALA	2.6
1	A	260	PRO	2.6
1	A	36	THR	2.6
1	A	264	PHE	2.6
1	A	272	VAL	2.6
1	A	214	ILE	2.6
1	A	181	GLY	2.6
1	A	303	ASN	2.6
1	A	286	GLY	2.5
1	A	169	TYR	2.5
1	A	224	LEU	2.5
1	A	310	LEU	2.5
1	A	39	SER	2.5
1	A	259	LEU	2.5
1	A	104	GLN	2.5
1	A	312	ALA	2.5
1	A	40	ASP	2.5
1	A	9[A]	PRO	2.4
1	A	56	GLN	2.4
1	A	128	LEU	2.4
1	A	184	THR	2.4
1	A	110	LYS	2.4
1	A	206[A]	SER	2.4
1	A	287	SER	2.4
1	A	187	ALA	2.4
1	A	15	ASP	2.3
1	A	92	ASP	2.3
1	A	244[A]	SER	2.3
1	A	273	ILE	2.3
1	A	267	GLY	2.3
1	A	254	PRO	2.3
1	A	158	THR	2.3
1	A	223	THR	2.3
1	A	290	CYS	2.3
1	A	275	GLY	2.3
1	A	219	ASP	2.3
1	A	211	SER	2.2
1	A	28	GLN	2.2
1	A	166	PRO	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	274	PRO	2.2
1	A	38	SER	2.1
1	A	293	GLY	2.1
1	A	29	THR	2.1
1	A	289[A]	SER	2.1
1	A	235	TYR	2.1
1	A	198	THR	2.1
1	A	257	ALA	2.1
1	A	295	GLN	2.1
1	A	243[A]	LYS	2.0
1	A	172	GLY	2.0

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

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

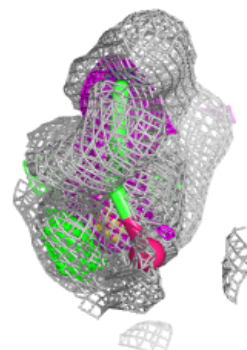
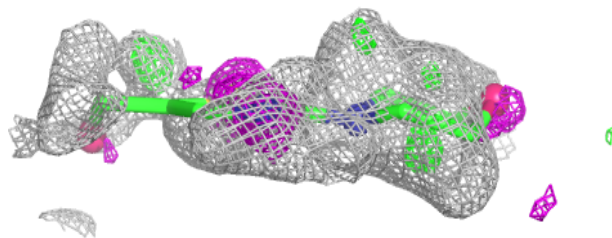
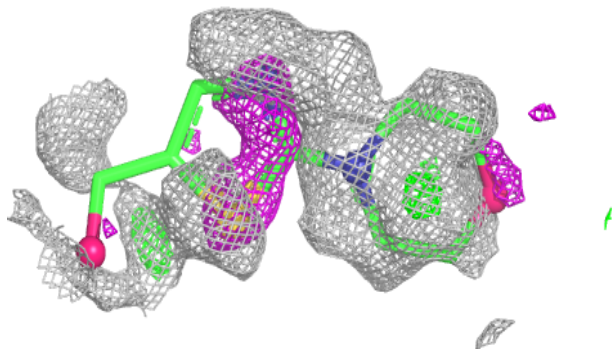
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q<0.9' lists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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
2	RA7	A	401[C]	13/13	0.34	0.29	9,9,11,13	13
2	RA7	A	401[D]	13/13	0.34	0.29	9,10,11,13	13
5	ACT	A	407	4/4	0.63	0.19	24,26,30,32	0
7	NA	A	409	1/1	0.66	0.31	56,56,56,56	0
6	PG4	A	408	13/13	0.68	0.24	33,40,52,52	0
3	DMS	A	403	4/4	0.70	0.22	30,32,41,43	0
4	GOL	A	406[B]	6/6	0.75	0.18	16,32,34,35	6
4	GOL	A	406[A]	6/6	0.75	0.18	14,19,21,23	6
4	GOL	A	405	6/6	0.76	0.22	12,16,22,25	6
3	DMS	A	404	4/4	0.81	0.20	13,19,26,31	0
3	DMS	A	402	4/4	0.84	0.20	20,31,31,33	0

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

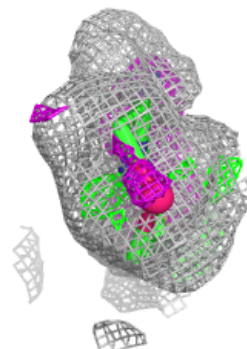
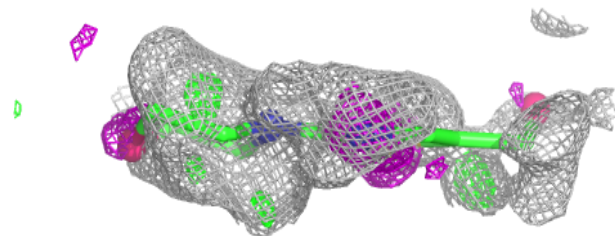
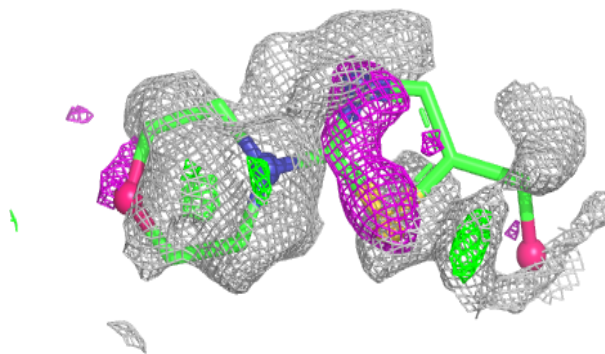
Electron density around RA7 A 401 (C):

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



Electron density around RA7 A 401 (D):

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



6.5 Other polymers [i](#)

There are no such residues in this entry.