

# Full wwPDB X-ray Structure Validation Report (i)

#### Jun 25, 2024 – 12:34 AM EDT

PDB ID	:	5THY
Title	:	Crystal structure of SeMet-Substituted CurJ carbon methyltransferase
Authors	:	Skiba, M.A.; Smith, J.L.
Deposited on		
Resolution	:	2.09  Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org* A user guide is available at https://www.wwpdb.org/validation/2017/XrayValidationReportHelp with specific help available everywhere you see the (i) symbol.

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

The following versions of software and data (see references (1)) were used in the production of this report:

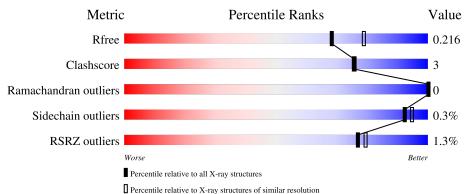
Xtriage (Phenix) EDS buster-report Percentile statistics Refmac CCP4 Ideal geometry (proteins) Ideal geometry (DNA, RNA)	: : : : :	20191225.v01 (using entries in the PDB archive December 25th 2019) 5.8.0158 7.0.044 (Gargrove) Engh & Huber (2001) Parkinson et al. (1996)
Ideal geometry (DNA, RNA) Validation Pipeline (wwPDB-VP)		Parkinson et al. (1996) 2.37.1

# 1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:  $X\text{-}RAY \, DIFFRACTION$ 

The reported resolution of this entry is 2.09 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	$egin{array}{c} { m Whole \ archive} \ (\#{ m Entries}) \end{array}$	${f Similar\ resolution}\ (\#{ m Entries,\ resolution\ range}({ m \AA}))$
$R_{free}$	130704	6189(2.10-2.06)
Clashscore	141614	6738 (2.10-2.06)
Ramachandran outliers	138981	6663 (2.10-2.06)
Sidechain outliers	138945	6664 (2.10-2.06)
RSRZ outliers	127900	6057 (2.10-2.06)

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

Mol	Chain	Length	Quality of chain		
1	А	405	% <b>87</b> %	8%	·
1	В	405	% <b>8</b> 4%	9%	7%



## 2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 6355 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.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	А	387	Total 3049	C 1946					0	1	0
1	В	376	Total 2948	C 1879		0 573			0	0	0

• Molecule 1 is a protein called CurJ.

Chain	Residue	Modelled	Actual		
А	-23	MSE	-	initiating methionine	UNP F4Y426
А	-22	HIS	-	expression tag	UNP F4Y426
А	-21	HIS	-	expression tag	UNP F4Y426
А	-20	HIS	-	expression tag	UNP F4Y426
А	-19	HIS	-	expression tag	UNP F4Y426
А	-18	HIS	-	expression tag	UNP F4Y426
А	-17	HIS	-	expression tag	UNP F4Y426
А	-16	SER	-	expression tag	UNP F4Y426
A	-15	SER	-	expression tag	UNP F4Y426
А	-14	GLY	-	expression tag	UNP F4Y426
А	-13	VAL	-	expression tag	UNP F4Y426
А	-12	ASP	-	expression tag	UNP F4Y426
А	-11	LEU	-	expression tag	UNP F4Y426
А	-10	GLY	-	expression tag	UNP F4Y426
А	-9	THR	-	expression tag	UNP F4Y426
A	-8	GLU	-	expression tag	UNP F4Y426
А	-7	ASN	-	expression tag	UNP F4Y426
А	-6	LEU	-	expression tag	UNP F4Y426
А	-5	TYR	-	expression tag	UNP F4Y426
А	-4	PHE	-	expression tag	UNP F4Y426
А	-3	GLN	-	expression tag	UNP F4Y426
А	-2	SER	-	expression tag	UNP F4Y426
А	-1	ASN	-	expression tag	UNP F4Y426
А	0	ALA	-	expression tag	UNP F4Y426
В	-23	MSE	-	initiating methionine	UNP F4Y426

There are 48 discrepancies between the modelled and reference sequences:

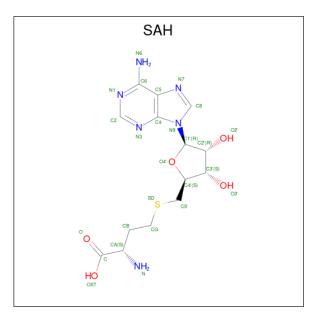
Continued on next page...



Chain	Residue	Modelled	Actual	Comment	Reference
В	-22	HIS	-	expression tag	UNP F4Y426
В	-21	HIS	-	expression tag	UNP F4Y426
В	-20	HIS	-	expression tag	UNP F4Y426
В	-19	HIS	-	expression tag	UNP F4Y426
В	-18	HIS	-	expression tag	UNP F4Y426
В	-17	HIS	-	expression tag	UNP F4Y426
В	-16	SER	-	expression tag	UNP F4Y426
В	-15	SER	-	expression tag	UNP F4Y426
В	-14	GLY	-	expression tag	UNP F4Y426
В	-13	VAL	-	expression tag	UNP F4Y426
В	-12	ASP	-	expression tag	UNP F4Y426
В	-11	LEU	-	expression tag	UNP F4Y426
В	-10	GLY	-	expression tag	UNP F4Y426
В	-9	THR	-	expression tag	UNP F4Y426
В	-8	GLU	-	expression tag	UNP F4Y426
В	-7	ASN	-	expression tag	UNP F4Y426
В	-6	LEU	-	expression tag	UNP F4Y426
В	-5	TYR	-	expression tag	UNP F4Y426
В	-4	PHE	-	expression tag	UNP F4Y426
В	-3	GLN	-	expression tag	UNP F4Y426
В	-2	SER	-	expression tag	UNP F4Y426
В	-1	ASN	-	expression tag	UNP F4Y426
В	0	ALA	-	expression tag	UNP F4Y426

Continued from previous page...

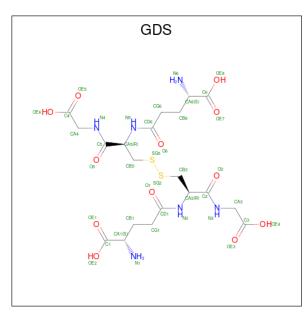
• Molecule 2 is S-ADENOSYL-L-HOMOCYSTEINE (three-letter code: SAH) (formula:  $C_{14}H_{20}N_6O_5S$ ).





Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	
0	۸	1	Total	С	Ν	Ο	$\mathbf{S}$	0	0	
	A	1	26	14	6	5	1	0		
0	р	1	Total	С	Ν	0	S	0	0	
	D	1	26	14	6	5	1	0	0	

- Molecule 3 is OXIDIZED GLUTATHIONE DISULFIDE (three-letter code: GDS) (formula:  $C_{20}H_{32}N_6O_{12}S_2$ ).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
9	D	1	Total	С	Ν	Ο	S	0	0
0	D	1	40	20	6	12	2	0	0

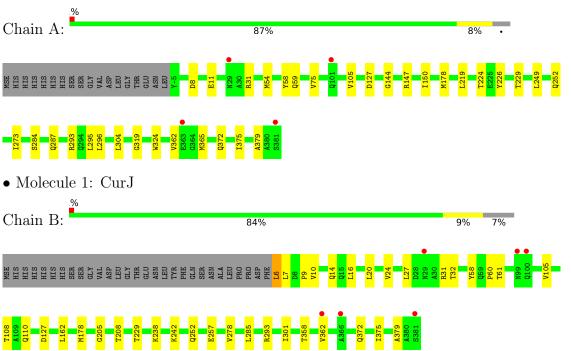
• Molecule 4 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	А	146	Total O 146 146	0	0
4	В	120	Total O 120 120	0	0



## 3 Residue-property plots (i)

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



• Molecule 1: CurJ



## 4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants	48.35Å 130.39Å 62.83Å	Denesiten
a, b, c, $\alpha$ , $\beta$ , $\gamma$	$90.00^{\circ}$ $111.98^{\circ}$ $90.00^{\circ}$	Depositor
Resolution (Å)	44.84 - 2.09	Depositor
Resolution (A)	44.84 - 2.09	EDS
% Data completeness	99.7(44.84-2.09)	Depositor
(in resolution range)	95.4(44.84-2.09)	EDS
R <sub>merge</sub>	0.16	Depositor
$R_{sym}$	(Not available)	Depositor
$< I/\sigma(I) > 1$	$0.39 (at 2.08 \text{\AA})$	Xtriage
Refinement program	PHENIX $(1.10_{2155})$	Depositor
$R, R_{free}$	0.169 , $0.215$	Depositor
II, IIfree	0.169 , $0.216$	DCC
$R_{free}$ test set	2263 reflections $(5.30%)$	wwPDB-VP
Wilson B-factor $(Å^2)$	34.1	Xtriage
Anisotropy	0.135	Xtriage
Bulk solvent $k_{sol}(e/Å^3), B_{sol}(Å^2)$	0.35 , $45.4$	EDS
L-test for twinning <sup>2</sup>	$<  L  > = 0.49, < L^2 > = 0.32$	Xtriage
Estimated twinning fraction	0.086 for h,-k,-h-l	Xtriage
$F_o, F_c$ correlation	0.96	EDS
Total number of atoms	6355	wwPDB-VP
Average B, all atoms $(Å^2)$	46.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 5.15% of the height of the origin peak. No significant pseudotranslation is detected.

<sup>&</sup>lt;sup>2</sup>Theoretical 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.



<sup>&</sup>lt;sup>1</sup>Intensities estimated from amplitudes.

# 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: GDS, SAH

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		
	Unam	RMSZ	# Z  > 5	RMSZ	# Z  > 5	
1	А	0.26	0/3104	0.44	0/4223	
1	В	0.25	0/2998	0.45	0/4076	
All	All	0.26	0/6102	0.44	0/8299	

There are no bond length outliers.

There are no bond angle outliers.

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	А	3049	0	3056	19	0
1	В	2948	0	2965	19	0
2	А	26	0	19	0	0
2	В	26	0	19	1	0
3	В	40	0	28	1	0
4	А	146	0	0	1	0
4	В	120	0	0	0	0
All	All	6355	0	6087	38	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 3.



Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)	
1:B:58:TYR:HB3	1:B:105:VAL:HG21	1.79	0.65	
1:B:358:THR:HG22	1:B:375:ILE:HG12	1.79	0.64	
1:A:31:ARG:NH1	1:A:127:ASP:OD1	2.32	0.62	
1:A:8:ASP:HB3	1:A:11:GLU:HG2	1.82	0.60	
1:B:162:LEU:HD22	1:B:238:LYS:HG3	1.85	0.58	
1:A:284:SER:HB3	1:A:287:GLN:HG2	1.87	0.57	
1:B:208:THR:O	1:B:242:LYS:NZ	2.32	0.53	
1:A:144:GLY:HA3	1:A:150:ILE:HD12	1.91	0.53	
1:A:362:VAL:O	1:A:365:MSE:HB2	2.09	0.52	
1:B:178:MSE:HE3	1:B:372:GLN:HB2	1.93	0.50	
1:A:31:ARG:HH12	1:A:127:ASP:CG	2.15	0.49	
1:A:178:MSE:HE3	1:A:372:GLN:HB2	1.95	0.48	
1:B:293:ARG:CZ	1:B:379:ALA:HB1	2.42	0.48	
1:A:273:ILE:HD12	1:A:296:LEU:HG	1.95	0.47	
1:A:54:MSE:HE1	1:A:75:VAL:HG22	1.96	0.47	
1:B:9:PRO:HG3	1:B:301:ILE:HD12	1.97	0.47	
1:A:229:THR:HA	1:A:252:GLN:O	2.15	0.47	
1:B:27:LEU:HD21	1:B:32:THR:HG21	1.97	0.47	
1:A:219:LEU:HD13	1:A:224:THR:HG21	1.97	0.46	
1:B:31:ARG:NH1	1:B:127:ASP:OD2	2.51	0.44	
1:B:229:THR:HA	1:B:252:GLN:O	2.18	0.44	
1:A:58:TYR:HB3	1:A:105:VAL:HG21	1.98	0.44	
1:A:319:GLY:HA2	1:A:324:TRP:CG	2.53	0.44	
1:B:257:GLU:HG3	2:B:501:SAH:HN62	1.82	0.43	
1:A:273:ILE:HD11	1:A:295:LEU:HB2	2.00	0.42	
1:B:110:GLN:H	3:B:502:GDS:HA31	1.83	0.42	
1:B:24:VAL:HG21	1:B:362:VAL:HG21	2.01	0.42	
1:A:59[A]:GLN:NE2	4:A:609:HOH:O	2.52	0.42	
1:B:10:VAL:O	1:B:14:GLN:HG3	2.20	0.42	
1:A:304:LEU:HB3	1:A:375:ILE:HB	2.02	0.41	
1:B:285:LEU:HD23	1:B:285:LEU:HA	1.88	0.41	
1:A:54:MSE:HE3	1:A:147:ARG:HG3	2.03	0.41	
1:A:226:TYR:HB3	1:A:249:LEU:HD23	2.03	0.41	
1:B:6:LEU:HD12	1:B:7:LEU:HD13	2.03	0.41	
1:B:16:LEU:HB3	1:B:20:LEU:HD13	2.02	0.41	
1:A:293:ARG:CZ	1:A:379:ALA:HB1	2.50	0.41	
1:B:205:GLY:HA3	1:B:278:VAL:HG21	2.03	0.41	
1:B:60:PRO:O	1:B:61:THR:OG1	2.33	0.40	

All (38) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

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	Perce	ntiles
1	А	386/405~(95%)	377~(98%)	9(2%)	0	100	100
1	В	374/405~(92%)	364~(97%)	10 (3%)	0	100	100
All	All	760/810~(94%)	741 (98%)	19 (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	А	338/347~(97%)	338 (100%)	0	100	100	
1	В	327/347~(94%)	325~(99%)	2(1%)	86	89	
All	All	665/694~(96%)	663~(100%)	2~(0%)	92	95	

All (2) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type	
1	В	6	LEU	
1	В	108	THR	

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



#### 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 monosaccharides in this entry.

#### 5.6 Ligand geometry (i)

3 ligands 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		
	туре	Chain	nes		Counts	RMSZ	# Z >2	Counts	RMSZ	# Z  > 2
3	GDS	В	502	-	37,39,39	0.75	0	$48,\!50,\!50$	0.86	0
2	SAH	В	501	-	24,28,28	1.17	3 (12%)	25,40,40	1.73	4 (16%)
2	SAH	А	501	-	24,28,28	1.18	3 (12%)	$25,\!40,\!40$	1.71	4 (16%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	GDS	В	502	-	-	29/51/51/51	-
2	SAH	В	501	-	-	0/11/31/31	0/3/3/3
2	SAH	А	501	-	-	1/11/31/31	0/3/3/3

All (6) bond length outliers are listed below:



Mol	Chain	Res	Type	Atoms	Ζ	Observed(Å)	Ideal(Å)
2	А	501	SAH	C2-N3	3.93	1.38	1.32
2	В	501	SAH	C2-N3	3.91	1.38	1.32
2	В	501	SAH	C2-N1	2.37	1.38	1.33
2	А	501	SAH	C2-N1	2.35	1.38	1.33
2	В	501	SAH	OXT-C	-2.10	1.23	1.30
2	А	501	SAH	OXT-C	-2.01	1.24	1.30

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Ζ	$\mathbf{Observed}(^{o})$	$Ideal(^{o})$
2	А	501	SAH	N3-C2-N1	-5.57	119.97	128.68
2	В	501	SAH	N3-C2-N1	-5.33	120.34	128.68
2	В	501	SAH	C5'-SD-CG	-4.27	89.45	102.27
2	А	501	SAH	C5'-SD-CG	-3.90	90.57	102.27
2	В	501	SAH	OXT-C-O	-2.52	118.38	124.09
2	А	501	SAH	OXT-C-O	-2.49	118.43	124.09
2	А	501	SAH	OXT-C-CA	2.34	121.34	113.38
2	В	501	SAH	OXT-C-CA	2.08	120.45	113.38

There are no chirality outliers.

All (30) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	В	502	GDS	CG1-CD1-N2-CA2
3	В	502	GDS	O1-CD1-N2-CA2
3	В	502	GDS	CB2-CA2-N2-CD1
3	В	502	GDS	O2-C2-CA2-CB2
3	В	502	GDS	N3-C2-CA2-CB2
3	В	502	GDS	C2-CA2-CB2-SG2
3	В	502	GDS	CA2-C2-N3-CA3
3	В	502	GDS	CG6-CD6-N5-CA5
3	В	502	GDS	N6-CA6-CB6-CG6
3	В	502	GDS	O6-CD6-N5-CA5
3	В	502	GDS	O2-C2-N3-CA3
3	В	502	GDS	CA1-CB1-CG1-CD1
3	В	502	GDS	CB2-SG2-SG5-CB5
3	В	502	GDS	N2-CA2-CB2-SG2
2	А	501	SAH	CA-CB-CG-SD
3	В	502	GDS	OE3-C3-CA3-N3
3	В	502	GDS	O5-C5-CA5-N5
3	В	502	GDS	N4-C5-CA5-N5
3	В	502	GDS	OE1-C1-CA1-N1

Continued on next page...



Mol	Chain	Res	Type	Atoms
3	В	502	GDS	C6-CA6-CB6-CG6
3	В	502	GDS	OE8-C6-CA6-CB6
3	В	502	GDS	CA5-CB5-SG5-SG2
3	В	502	GDS	OE7-C6-CA6-CB6
3	В	502	GDS	OE4-C3-CA3-N3
3	В	502	GDS	OE5-C4-CA4-N4
3	В	502	GDS	OE2-C1-CA1-N1
3	В	502	GDS	C3-CA3-N3-C2
3	В	502	GDS	OE1-C1-CA1-CB1
3	В	502	GDS	OE2-C1-CA1-CB1
3	В	502	GDS	OE6-C4-CA4-N4

Continued from previous page...

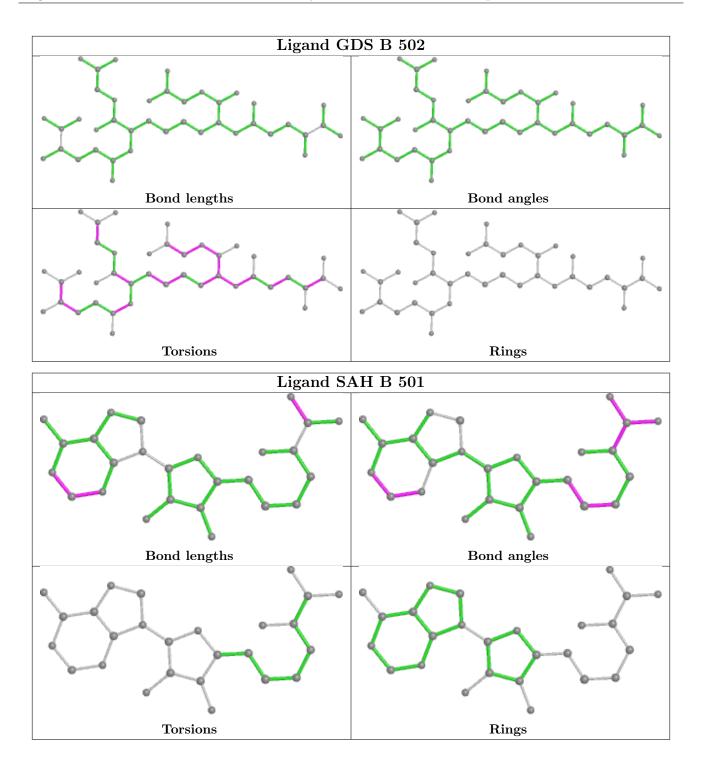
There are no ring outliers.

2 monomers are involved in 2 short contacts:

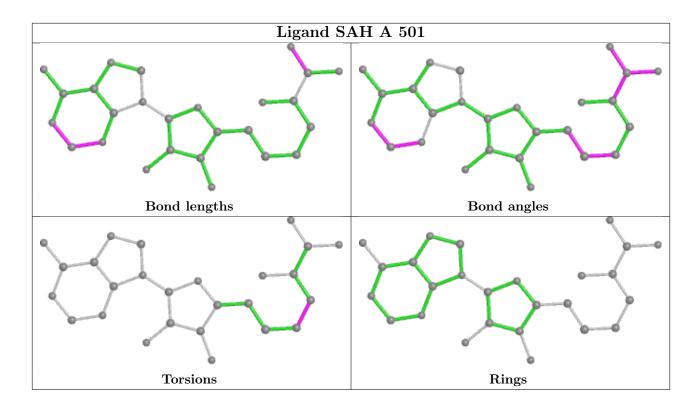
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	В	502	GDS	1	0
2	В	501	SAH	1	0

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 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 similar 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 (i)

### 6.1 Protein, DNA and RNA chains (i)

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

Mol	Chain	Analysed	$\langle RSRZ \rangle$	#RSRZ>2	$OWAB(Å^2)$	Q<0.9
1	А	382/405~(94%)	-0.18	4 (1%) 82 84	25, 41, 70, 111	0
1	В	371/405~(91%)	-0.10	6 (1%) 72 75	28, 42, 77, 101	0
All	All	753/810~(92%)	-0.14	10 (1%) 77 79	25, 41, 74, 111	0

All (10) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	А	381	SER	4.6
1	В	381	SER	4.0
1	В	366	ALA	3.3
1	В	99	ASN	3.0
1	В	29	ASN	2.7
1	А	29	ASN	2.6
1	А	101	GLN	2.5
1	В	362	VAL	2.2
1	В	100	GLN	2.1
1	А	363	GLU	2.1

### 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 monosaccharides in this entry.



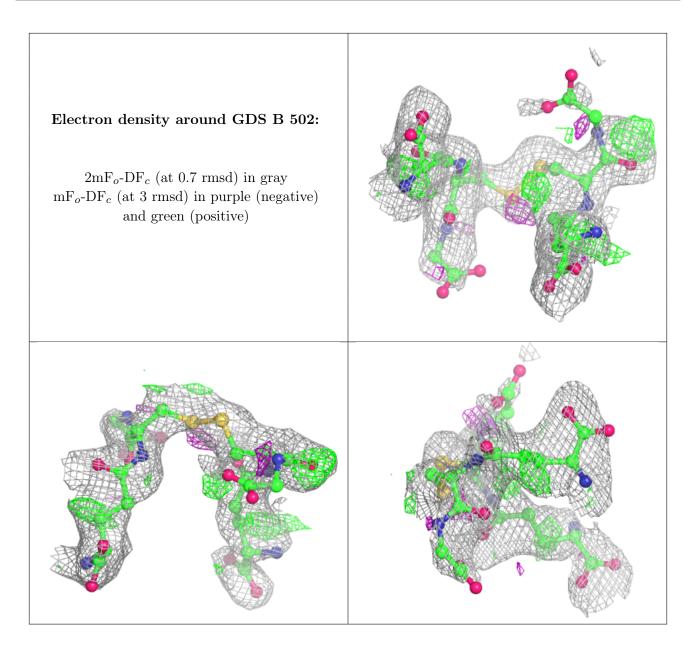
### 6.4 Ligands (i)

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

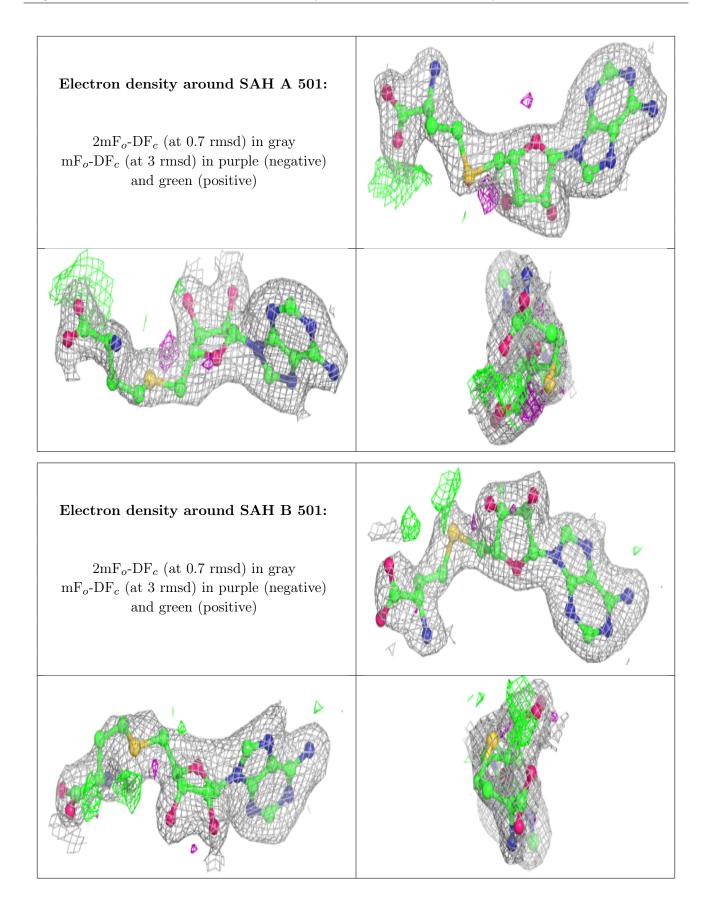
Mol	Type	Chain	Res	Atoms	RSCC	RSR	$\mathbf{B} ext{-factors}(\mathrm{\AA}^2)$	Q<0.9
3	GDS	В	502	40/40	0.69	0.25	60,81,107,114	0
2	SAH	А	501	26/26	0.95	0.14	32,53,71,82	0
2	SAH	В	501	26/26	0.96	0.14	39,54,86,95	0

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.











## 6.5 Other polymers (i)

There are no such residues in this entry.

