

Full wwPDB X-ray Structure Validation Report (i)

May 14, 2020 – 03:07 pm BST

PDB ID : 6BLA

Title: Structure of AMM01 Fab, an anti EBV gH/gL neutralizing antibody

Authors: Pancera, M.; Weidle, C.; Seattle Structural Genomics Center for Infectious

Disease (SSGCID)

Deposited on : 2017-11-09

Resolution : 1.55 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 following versions of software and data (see references (1)) were used in the production of this report:

MolProbity : 4.02b-467

Mogul: 1.8.5 (274361), CSD as541be (2020)

Xtriage (Phenix) : 1.13 EDS : 2.11

buster-report : 1.1.7 (2018)

Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)

Refmac: 5.8.0158

CCP4 : 7.0.044 (Gargrove)

Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)

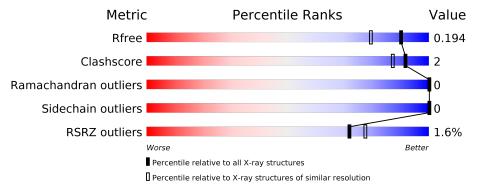
Validation Pipeline (wwPDB-VP) : 2.11

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 1.55 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	$\begin{array}{c} \text{Whole archive} \\ (\#\text{Entries}) \end{array}$	$\begin{array}{c} {\rm Similar \; resolution} \\ (\#{\rm Entries, \; resolution \; range(\AA)}) \end{array}$
R_{free}	130704	1483 (1.56-1.56)
Clashscore	141614	1529 (1.56-1.56)
Ramachandran outliers	138981	1498 (1.56-1.56)
Sidechain outliers	138945	1495 (1.56-1.56)
RSRZ outliers	127900	1465 (1.56-1.56)

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 on 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	Н	227	96%	•
2	L	216	98%	•



2 Entry composition (i)

There are 9 unique types of molecules in this entry. The entry contains 7080 atoms, of which 3326 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.

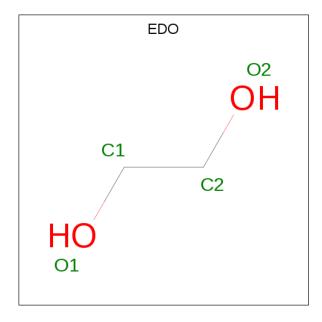
• Molecule 1 is a protein called AMM01 Fab Heavy chain.

Mol	Chain	Residues		${f Atoms}$						AltConf	Trace
1	Н	226	Total 3322	C 1060	H 1638	N 285	O 330	S	0	0	0

• Molecule 2 is a protein called AMM01 Fab Light chain.

Mol	Chain	Residues			Atom	S			ZeroOcc	AltConf	Trace
2	L	215	Total 3190	C 1018	H 1564	N 277	O 326	S 5	0	2	0

• Molecule 3 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: C₂H₆O₂).



Mol	Chain	Residues	A	ton	\mathbf{ns}	ZeroOcc	AltConf
3	Н	1	Total 9		H 5	0	0
3	Н	1	Total 9		H 5	0	0

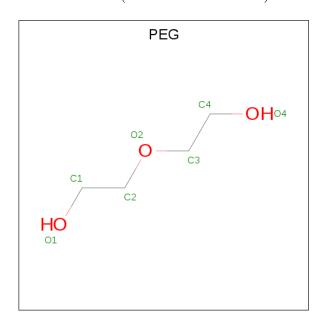
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Mol	Chain	Residues	A	ton	ns		ZeroOcc	AltConf
3	L	1	Total 9	C 2	H 5	O 2	0	0
3	L	1	Total 9	$\frac{2}{C}$	H 5	O 2	0	0
3	L	1	Total	С	Н	O	0	0
3	Ι.	1	9 Total	2 C	5 H	2 O	0	0
	т	1	9 Total	$\frac{2}{C}$	5 H	2 O	0	0
3	L	1	9	2	5	2	0	0
3	L	1	Total 9	$\frac{\mathrm{C}}{2}$	H 5	2	0	0

• Molecule 4 is DI(HYDROXYETHYL)ETHER (three-letter code: PEG) (formula: C₄H₁₀O₃).



Mol	Chain	Residues	A	tor	ns		ZeroOcc	AltConf
4	Н	1	Total	С	Н	O	0	0
			17	4	10	3		
4	Н	1	Total	С	Η	O	0	0
	11	1	17	4	10	3	Ü	
4	H	1	Total	\mathbf{C}	Η	Ο	0	0
4	11	1	17	4	10	3	U	0
4	Т	1	Total	С	Н	О	0	0
$\begin{vmatrix} 4 \end{vmatrix}$	Г	1	17	4	10	3	U	

 \bullet Molecule 5 is GLYCEROL (three-letter code: GOL) (formula: $\mathrm{C_3H_8O_3}).$





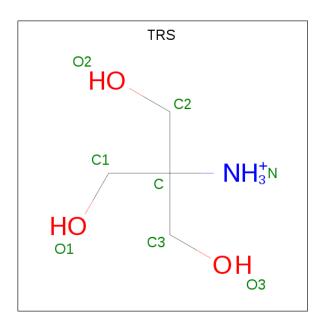
Mol	Chain	Residues	A	ton	ns		ZeroOcc	AltConf	
5	Н	1	Total	С	Н	О	0	0	
	11	1	14	3	8	3	U		
5	Ŧ	1	Total	С	Н	О	0	0	
9	ь	1	14	3	8	3	0	0	

• Molecule 6 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

N	Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
	6	Н	3	Total Cl 3 3	0	0
	6	L	3	Total Cl 3 3	0	0

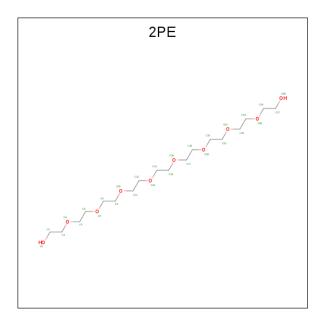
 \bullet Molecule 7 is 2-AMINO-2-HYDROXYMETHYL-PROPANE-1,3-DIOL (three-letter code: TRS) (formula: $C_4H_{12}NO_3).$





Mol	Chain	Residues		At	$\overline{\mathrm{oms}}$			ZeroOcc	AltConf
7	TT	1	Total	С	Н	N	О	0	0
1	П	1	20	4	12	1	3	0	U

 \bullet Molecule 8 is NONAETHYLENE GLYCOL (three-letter code: 2PE) (formula: $\mathrm{C_{18}H_{38}O_{10}}).$



Mol	Chain	Residues	Α	Ltor	$\mathbf{n}\mathbf{s}$		ZeroOcc	AltConf
8	Н	1	Total 29	C 8	H 16	O 5	0	0

• Molecule 9 is water.



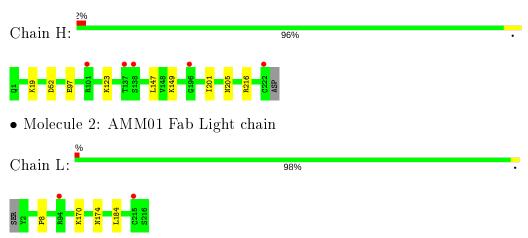
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
9	Н	171	Total O 171 171	0	0
9	L	174	Total O 174 174	0	0



3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA 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: AMM01 Fab Heavy chain





4 Data and refinement statistics (i)

Property	Value	Source	
Space group	P 21 21 21	Depositor	
Cell constants	49.89Å 69.94Å 136.31Å	Depositor	
a, b, c, α , β , γ	90.00° 90.00° 90.00°	Depositor	
Resolution (Å)	48.81 - 1.55	Depositor	
Resolution (A)	48.81 - 1.55	EDS	
% Data completeness	88.2 (48.81-1.55)	Depositor	
(in resolution range)	88.2 (48.81-1.55)	EDS	
R_{merge}	(Not available)	Depositor	
R_{sym}	(Not available)	Depositor	
$< I/\sigma(I) > 1$	1.17 (at 1.55Å)	Xtriage	
Refinement program	PHENIX (1.11.1_2575: ???)	Depositor	
D D.	0.166 , 0.194	Depositor	
R, R_{free}	0.166 , 0.194	DCC	
R_{free} test set	3105 reflections (5.02%)	wwPDB-VP	
Wilson B-factor (Å ²)	29.1	Xtriage	
Anisotropy	0.060	Xtriage	
Bulk solvent $k_{sol}(e/Å^3)$, $B_{sol}(Å^2)$	0.40 , 52.0	EDS	
L-test for twinning ²	$ < L > = 0.49, < L^2> = 0.33$	Xtriage	
Estimated twinning fraction	No twinning to report.	Xtriage	
F_o, F_c correlation	0.97	EDS	
Total number of atoms	7080	wwPDB-VP	
Average B, all atoms (Å ²)	41.0	wwPDB-VP	

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 5.52% of the height of the origin peak. No significant pseudotranslation is detected.

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



¹Intensities 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: GOL, PEG, CL, EDO, 2PE, TRS, PCA

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	Н	0.47	0/1719	0.67	0/2346	
2	L	0.43	0/1675	0.61	0/2291	
All	All	0.46	0/3394	0.64	0/4637	

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)	$\mathbf{H}(\mathbf{added})$	Clashes	Symm-Clashes
1	Н	1684	1638	1639	8	0
2	L	1626	1564	1568	3	0
3	Н	8	10	12	0	0
3	L	24	30	36	0	0
4	Н	21	30	30	2	0
4	L	7	10	10	1	0
5	Н	6	8	8	1	0
5	L	6	8	8	0	0
6	Н	3	0	0	0	0
6	L	3	0	0	1	0
7	Н	8	12	12	0	0

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Mol	Chain	Non-H	$\mathbf{H}(\mathbf{model})$	$\mathbf{H}(\mathbf{added})$	Clashes	Symm-Clashes
8	Н	13	16	16	0	0
9	Н	171	0	0	3	0
9	L	174	0	0	0	0
All	All	3754	3326	3339	11	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 2.

All (11) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	$egin{array}{l} ext{Interatomic} \ ext{distance} \ (ext{Å}) \end{array}$	$egin{aligned} ext{Clash} \ ext{overlap } (ext{Å}) \end{aligned}$
1:H:97:GLU:OE1	9:H:401:HOH:O	1.99	0.79
1:H:205:ASN:OD1	9:H:402:HOH:O	2.16	0.61
1:H:19:LYS:NZ	4:H:304:PEG:O4	2.32	0.59
1:H:52:ASP:OD2	9:H:401:HOH:O	2.17	0.58
2:L:184:LEU:HD22	4:L:301:PEG:H11	1.88	0.54
1:H:19:LYS:HZ1	4:H:304:PEG:C4	2.23	0.47
2:L:8:PRO:HD2	6:L:311:CL:CL	2.53	0.46
2:L:170:LYS:HE2	2:L:174:ASN:O	2.16	0.45
1:H:201:ILE:HD13	1:H:216:ARG:HA	2.01	0.42
1:H:147:LEU:HG	1:H:149:LYS:HG3	2.03	0.41
1:H:123:LYS:HD2	5:H:306:GOL:H32	2.03	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	ain Analysed Favoured Allowed		Outliers	Percentiles		
1	Н	$224/227 \ (99\%)$	220 (98%)	4 (2%)	0	100	100
2	L	$215/216 \ (100\%)$	211 (98%)	4 (2%)	0	100	100
All	All	439/443 (99%)	431 (98%)	8 (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	Н	188/189 (100%)	188 (100%)	0	100	100	
2	L	182/181 (101%)	182 (100%)	0	100	100	
All	All	370/370 (100%)	370 (100%)	0	100	100	

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

Some 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)

1 non-standard protein/DNA/RNA residue is 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		
			nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	PCA	Н	1	1	7,8,9	1.87	2 (28%)	9,10,12	2.17	5 (55%)

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
1	PCA	Н	1	1	-	0/0/11/13	0/1/1/1

All (2) bond length outliers are listed below:

N.	[ol	Chain	Res	Type	Atoms	Z	$\mathbf{Observed}(\mathbf{\mathring{A}})$	$Ideal(\AA)$
	1	Н	1	PCA	CD-N	4.35	1.46	1.34
	1	Н	1	PCA	CA-N	2.04	1.48	1.46

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	\mathbf{Z}	$Observed(^o)$	$\operatorname{Ideal}({}^o)$
1	Н	1	PCA	CA-N-CD	-3.08	103.04	113.58
1	Н	1	PCA	CB-CA-N	3.06	112.07	103.30
1	Н	1	PCA	CB-CA-C	-3.02	108.54	112.70
1	Н	1	PCA	CG-CD-N	2.55	115.00	108.39
1	Н	1	PCA	OE-CD-CG	-2.49	122.43	126.76

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no carbohydrates in this entry.

5.6 Ligand geometry (i)

Of 22 ligands modelled in this entry, 6 are monoatomic - leaving 16 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	Т	Chain	Dag	Link	Во	ond leng	ths	В	ond ang	les
MIOI	Type	Chain	m Res	Link	Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	PEG	L	301	-	6,6,6	0.51	0	5,5,5	0.29	0
3	EDO	Н	305	-	3,3,3	0.43	0	2,2,2	0.33	0
5	GOL	Н	306	-	5,5,5	0.38	0	5,5,5	0.25	0
4	PEG	Н	304	-	6,6,6	0.49	0	5,5,5	0.22	0
5	GOL	L	308	-	5,5,5	0.48	0	5,5,5	0.54	0
3	EDO	L	302	-	3,3,3	0.48	0	2,2,2	0.16	0
4	PEG	Н	303	-	6,6,6	0.51	0	5,5,5	0.22	0
3	EDO	L	307	-	3,3,3	0.45	0	2,2,2	0.32	0
4	PEG	Н	302	-	6,6,6	0.52	0	5,5,5	0.26	0
8	2PE	Н	311	-	12,12,27	0.51	0	11,11,26	0.53	0
3	EDO	L	306	-	3,3,3	0.49	0	2,2,2	0.30	0
3	EDO	L	303	-	3,3,3	0.49	0	2,2,2	0.38	0
3	EDO	Н	301	-	3,3,3	0.53	0	2,2,2	0.60	0
3	EDO	L	304	-	3,3,3	0.49	0	2,2,2	0.12	0
7	TRS	Н	310	-	7,7,7	0.37	0	9,9,9	0.46	0
3	EDO	L	305	-	3,3,3	0.50	0	2,2,2	0.48	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	PEG	L	301	_	-	1/4/4/4	-
3	EDO	Н	305	-	-	1/1/1/1	-
5	GOL	Н	306	_	-	2/4/4/4	_
4	PEG	Н	304	_	-	1/4/4/4	-
5	GOL	L	308	_	-	2/4/4/4	-
3	EDO	L	302	_	-	0/1/1/1	-
4	PEG	Н	303	_	-	1/4/4/4	-
3	EDO	L	307	_	-	1/1/1/1	-
4	PEG	Н	302	-	-	2/4/4/4	-
8	2PE	Н	311	-	-	5/10/10/25	-
3	EDO	L	306	_	-	0/1/1/1	-
3	EDO	L	303	-	-	0/1/1/1	-
3	EDO	Н	301	_	-	1/1/1/1	-
3	EDO	L	304	_	-	0/1/1/1	-
7	TRS	Н	310	_	_	3/9/9/9	_
3	EDO	L	305	_	-	0/1/1/1	-

There are no bond length outliers.



There are no bond angle outliers.

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	Н	306	GOL	O1-C1-C2-C3
7	Н	310	TRS	C2-C-C1-O1
7	Н	310	TRS	C3-C-C1-O1
7	Н	310	TRS	N-C-C1-O1
8	Н	311	2PE	O16-C17-C18-O19
4	Н	304	PEG	O2-C3-C4-O4
8	Н	311	2PE	O22-C23-C24-O25
4	Н	302	PEG	O2-C3-C4-O4
4	Н	303	PEG	O1-C1-C2-O2
8	Н	311	2PE	O19-C20-C21-O22
5	L	308	GOL	O1-C1-C2-C3
5	Н	306	GOL	O1-C1-C2-O2
5	L	308	GOL	O1-C1-C2-O2
3	Н	301	EDO	O1-C1-C2-O2
3	Н	305	EDO	O1-C1-C2-O2
8	Н	311	2PE	C20-C21-O22-C23
4	L	301	PEG	C1-C2-O2-C3
8	Н	311	2PE	C24-C23-O22-C21
3	L	307	EDO	O1-C1-C2-O2
4	Н	302	PEG	O1-C1-C2-O2

There are no ring outliers.

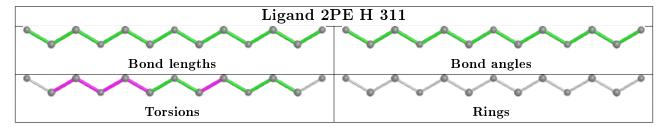
3 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	L	301	PEG	1	0
5	Н	306	GOL	1	0
4	Н	304	PEG	2	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 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 (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	<RSRZ $>$	$\#\mathrm{RSRZ}{>}2$	$OWAB(\AA^2)$	Q < 0.9
1	Н	$225/227 \ (99\%)$	0.06	5 (2%) 62 6	7 24, 31, 66, 144	0
2	L	$215/216 \ (99\%)$	-0.12	2 (0%) 84 8	7 24, 31, 60, 105	0
All	All	440/443 (99%)	-0.03	7 (1%) 72 7	7 24, 31, 63, 144	0

All (7) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	Н	222	CYS	6.0
2	L	94	ARG	4.6
1	Н	137	THR	4.0
1	Н	101	ARG	3.2
2	L	215	CYS	2.7
1	Н	138	SER	2.7
1	Н	196	GLY	2.6

6.2 Non-standard residues in protein, DNA, RNA chains (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	${f B\text{-factors}}({f A}^2)$	Q<0.9
1	PCA	Н	1	8/9	0.92	0.12	30,43,54,54	0

6.3 Carbohydrates (i)

There are no carbohydrates in this entry.



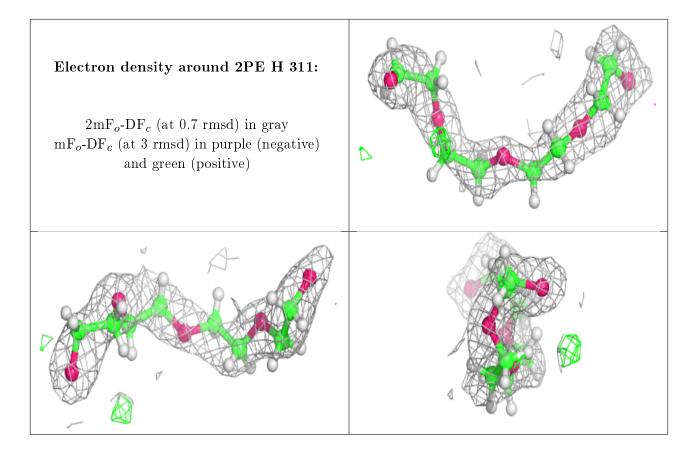
6.4 Ligands (i)

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	${f B-factors}({f \AA}^2)$	Q<0.9
4	PEG	Н	302	7/7	0.26	0.29	62,76,94,94	0
7	TRS	Н	310	8/8	0.45	0.24	110,134,142,142	0
5	GOL	Н	306	6/6	0.53	0.21	65,88,108,130	0
4	PEG	Н	304	7/7	0.57	0.19	71,87,100,100	0
6	CL	L	311	1/1	0.73	0.11	78,78,78,78	0
8	2PE	Н	311	13/28	0.75	0.18	48,61,137,138	0
3	EDO	L	307	4/4	0.76	0.19	66,78,93,93	0
4	PEG	L	301	7/7	0.77	0.17	49,60,73,73	0
4	PEG	Н	303	7/7	0.78	0.17	56,74,94,94	0
5	GOL	L	308	6/6	0.84	0.17	51,68,81,84	0
3	EDO	Н	305	4/4	0.85	0.10	61,65,78,78	0
3	EDO	L	303	4/4	0.86	0.17	79,85,102,102	0
6	CL	Н	308	1/1	0.87	0.17	74,74,74,74	0
3	EDO	L	306	4/4	0.87	0.17	54,70,77,87	0
6	CL	Н	309	1/1	0.88	0.08	83,83,83,83	0
3	EDO	Н	301	4/4	0.90	0.15	43,67,89,89	0
3	EDO	L	305	4/4	0.95	0.11	38,45,54,54	0
3	EDO	L	304	4/4	0.96	0.10	36,58,73,73	0
6	CL	L	310	1/1	0.96	0.06	62,62,62,62	0
3	EDO	L	302	4/4	0.97	0.07	31,36,44,44	0
6	CL	L	309	1/1	0.98	0.11	64,64,64,64	0
6	CL	Н	307	1/1	1.00	0.10	30,30,30,30	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.

