

Full wwPDB X-ray Structure Validation Report (i)

Jan 4, 2024 – 03:22 pm GMT

PDB ID : 5FRO

Title: Crystal structure of the Prototype Foamy Virus (PFV) intasome in complex

with magnesium and the INSTI XZ446 (compound 4f)

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Deposited on : 2015-12-18

Resolution : 2.67 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:

MolProbity: 4.02b-467

Mogul : 1.8.4, CSD as541be (2020)

Xtriage (Phenix) : 1.13

EDS : 2.36

buster-report : 1.1.7 (2018)

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

 $Refmac \quad : \quad 5.8.0158$

CCP4 : 7.0.044 (Gargrove)

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

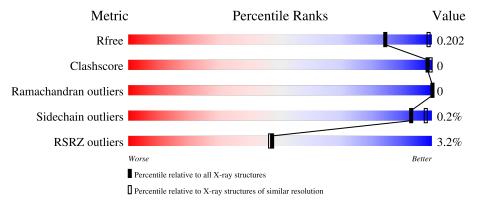
Validation Pipeline (wwPDB-VP) : 2.36

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 2.67 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 $(\# \mathrm{Entries})$	$\begin{array}{c} {\rm Similar\ resolution} \\ (\#{\rm Entries,\ resolution\ range(\mathring{A})}) \end{array}$
R_{free}	130704	3863 (2.70-2.66)
Clashscore	141614	4210 (2.70-2.66)
Ramachandran outliers	138981	4141 (2.70-2.66)
Sidechain outliers	138945	4141 (2.70-2.66)
RSRZ outliers	127900	3780 (2.70-2.66)

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 cl	hain	
1	A	395	.%	91%		• 7%
1	В	395	46%	·	54%	
2	С	19		100%		
3	D	17	6%	100%		

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard



residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
8	GOL	В	1299	-	-	-	X



2 Entry composition (i)

There are 9 unique types of molecules in this entry. The entry contains 5389 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 PFV INTEGRASE.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace	
1	A	367	Total 2929	C 1879	N 514	O 532	S 4	0	1	0
1	В	182	Total 1438	C 931		O 270	S 1	0	0	0

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-2	GLY	-	expression tag	UNP P14350
A	-1	PRO	-	expression tag	UNP P14350
A	217	SER	GLY	variant	UNP P14350
В	-2	GLY	-	expression tag	UNP P14350
В	-1	PRO	-	expression tag	UNP P14350
В	217	SER	GLY	variant	UNP P14350

• Molecule 2 is a DNA chain called 5'-D(*AP*TP*TP*GP*TP*CP*AP*TP*GP*GP*AP*A P*TP*TP *TP*CP*GP*CP*A)-3'.

Mol	Chain	Residues		\mathbf{At}	oms			ZeroOcc	AltConf	Trace
2	С	19	Total 387	C 187	N 68	O 114	P 18	0	0	0

• Molecule 3 is a DNA chain called 5'-D(*TP*GP*CP*GP*AP*AP*AP*TP*TP*CP*CP*A P*TP*GP *AP*CP*A)-3'.

Mol	Chain	Residues		\mathbf{At}	oms			ZeroOcc	AltConf	Trace
3	D	17	Total 345	C 166	N 65	O 98	P 16	0	0	0

• Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn).

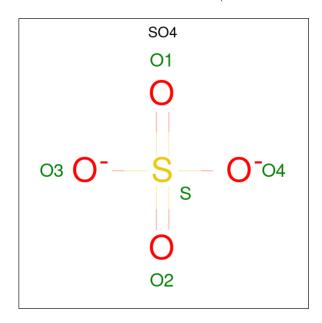


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	1	Total Zn 1 1	0	0

• Molecule 5 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	2	Total Mg 2 2	0	0
5	В	1	Total Mg 1 1	0	0

• Molecule 6 is SULFATE ION (three-letter code: SO4) (formula: O₄S).

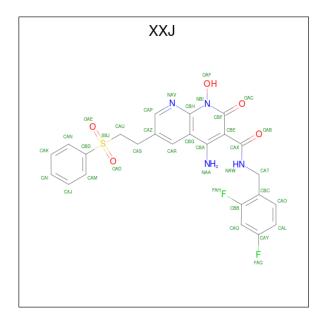


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	1	Total O S 5 4 1	0	0
6	A	1	Total O S 5 4 1	0	0
6	A	1	Total O S 5 4 1	0	0
6	A	1	Total O S 5 4 1	0	0
6	В	1	Total O S 5 4 1	0	0

 $\bullet \ \, Molecule \ 7 \ is \ 4-azanyl-N-[[2,4-bis(fluoranyl)phenyl]methyl]-1-oxidanyl-2-oxidanylidene-6-[2-(phenylsulfonyl)ethyl]-1,8-naphthyridine-3-carboxamide (three-letter code: XXJ) (formula: 1-1,8-naphthyridine-3-carboxamide) (three-letter) (three-letter$



 $C_{24}H_{20}F_2N_4O_5S).$



Mol	Chain	Residues		A	ton	ns			ZeroOcc	AltConf
7	A	1	Total 36		F 2		O 5	S 1	0	0

• Molecule 8 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



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

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
8	В	1	Total C O 6 3 3	0	0
8	В	1	Total C O 6 3 3	0	0
8	С	1	Total C O 6 3 3	0	0

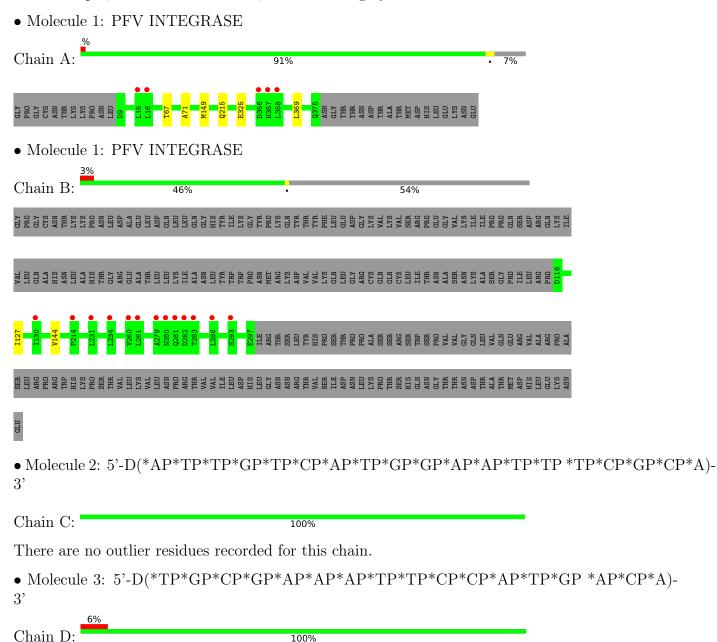
• Molecule 9 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
9	A	144	Total O 144 144	0	0
9	В	27	Total O 27 27	0	0
9	С	15	Total O 15 15	0	0
9	D	9	Total O 9 9	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.









4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 41 21 2	Depositor
Cell constants	159.90Å 159.90Å 123.77Å	Donogitor
a, b, c, α , β , γ	90.00° 90.00° 90.00°	Depositor
Resolution (Å)	56.53 - 2.67	Depositor
Resolution (A)	79.95 - 2.67	EDS
% Data completeness	97.1 (56.53-2.67)	Depositor
(in resolution range)	96.6 (79.95-2.67)	EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) > 1$	1.94 (at 2.65Å)	Xtriage
Refinement program	PHENIX (PHENIX.REFINE)	Depositor
D D.	0.181 , 0.200	Depositor
R, R_{free}	0.182 , 0.202	DCC
R_{free} test set	2243 reflections (5.04%)	wwPDB-VP
Wilson B-factor (Å ²)	61.9	Xtriage
Anisotropy	0.304	Xtriage
Bulk solvent $k_{sol}(e/Å^3)$, $B_{sol}(Å^2)$	0.33, 40.5	EDS
L-test for twinning ²	$ < L >=0.49, < L^2>=0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	5389	wwPDB-VP
Average B, all atoms (Å ²)	67.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 3.10% 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, MG, XXJ, SO4, ZN

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	
IVIOI	Chain	RMSZ	# Z > 5	RMSZ	# Z > 5
1	A	0.24	0/3011	0.44	0/4107
1	В	0.25	0/1479	0.42	0/2020
2	С	0.57	0/433	0.95	0/667
3	D	0.57	0/387	0.88	0/595
All	All	0.32	0/5310	0.55	0/7389

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	A	2929	0	2973	3	0
1	В	1438	0	1421	1	0
2	С	387	0	218	0	0
3	D	345	0	193	0	0
4	A	1	0	0	0	0
5	A	2	0	0	0	0
5	В	1	0	0	0	0
6	A	20	0	0	0	0
6	В	5	0	0	0	0

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COHABABACA		DIEUIUU	DUIUE
0 0 1000100000			

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	A	36	0	19	1	0
8	A	12	0	16	0	0
8	В	12	0	16	0	0
8	С	6	0	8	0	0
9	A	144	0	0	0	0
9	В	27	0	0	0	0
9	С	15	0	0	0	0
9	D	9	0	0	0	0
All	All	5389	0	4864	5	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 0.

All (5) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	$\begin{array}{c} \text{Interatomic} \\ \text{distance (Å)} \end{array}$	$\begin{array}{c} \text{Clash} \\ \text{overlap } (\text{\AA}) \end{array}$
7:A:1376:XXJ:OAC	7:A:1376:XXJ:NAW	2.42	0.52
1:B:127:ILE:HA	1:B:144:VAL:O	2.17	0.44
1:A:325:GLU:HA	1:A:369:LEU:HD23	2.00	0.43
1:A:67:THR:HB	1:A:71:ALA:HB3	2.01	0.41
1:A:215[B]:GLN:HE21	1:A:215[B]:GLN:HB3	1.65	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	Perce	ntiles
1	A	366/395~(93%)	359 (98%)	7 (2%)	0	100	100
1	В	180/395 (46%)	175 (97%)	5 (3%)	0	100	100
All	All	546/790 (69%)	534 (98%)	12 (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	Perce	ntiles
1	A	330/354 (93%)	329 (100%)	1 (0%)	92	97
1	В	160/354~(45%)	160 (100%)	0	100	100
All	All	490/708~(69%)	489 (100%)	1 (0%)	93	98

All (1) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	149	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	19	HIS

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)

Of 15 ligands modelled in this entry, 4 are monoatomic - leaving 11 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	Trino	Chain	Res	Link	В	ond leng	$_{ m gths}$	Е	ond ang	gles
MIOI	Type	Chain	nes	Lilik	Counts	RMSZ	# Z >2	Counts	RMSZ	# Z > 2
8	GOL	A	1377	-	5,5,5	0.36	0	5,5,5	0.27	0
6	SO4	A	407	-	4,4,4	0.15	0	6,6,6	0.06	0
6	SO4	В	393	-	4,4,4	0.16	0	6,6,6	0.04	0
6	SO4	A	409	-	4,4,4	0.15	0	6,6,6	0.05	0
8	GOL	В	1299	_	5,5,5	0.35	0	5,5,5	0.29	0
8	GOL	A	1378	-	5,5,5	0.36	0	5,5,5	0.27	0
8	GOL	В	1298	-	5,5,5	0.36	0	5,5,5	0.22	0
8	GOL	С	1020	-	5,5,5	0.34	0	5,5,5	0.36	0
6	SO4	A	408	-	4,4,4	0.16	0	6,6,6	0.04	0
6	SO4	A	410	-	4,4,4	0.16	0	6,6,6	0.04	0
7	XXJ	A	1376	5	39,39,39	2.23	11 (28%)	47,57,57	2.04	10 (21%)

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
8	GOL	A	1377	-	-	2/4/4/4	-
8	GOL	В	1299	-	-	1/4/4/4	-
8	GOL	A	1378	-	-	2/4/4/4	_
8	GOL	В	1298	-	-	0/4/4/4	-
8	GOL	С	1020	-	-	3/4/4/4	-
7	XXJ	A	1376	5	_	3/21/21/21	0/4/4/4

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$\operatorname{Observed}(\text{\AA})$	Ideal(A)
7	A	1376	XXJ	OAE-SBJ	6.38	1.53	1.44
7	A	1376	XXJ	OAD-SBJ	6.32	1.53	1.44

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Mol	Chain	Res	Type	Atoms	\mathbf{Z}	$\operatorname{Observed}(\text{\AA})$	$\operatorname{Ideal}(ext{\AA})$
7	A	1376	XXJ	CBG-CBA	-4.41	1.39	1.46
7	A	1376	XXJ	CBE-CAX	-3.97	1.40	1.48
7	A	1376	XXJ	CAS-CAZ	-3.86	1.40	1.51
7	A	1376	XXJ	CAT-CBC	-3.53	1.39	1.50
7	A	1376	XXJ	CBH-NBI	-2.90	1.35	1.38
7	A	1376	XXJ	CAU-SBJ	2.86	1.83	1.77
7	A	1376	XXJ	CAP-NAV	2.76	1.40	1.34
7	A	1376	XXJ	CBE-CBF	-2.76	1.39	1.44
7	A	1376	XXJ	CBF-NBI	-2.24	1.35	1.38

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	\mathbf{Z}	$Observed(^o)$	$\operatorname{Ideal}({}^{o})$
7	A	1376	XXJ	OAE-SBJ-OAD	-7.53	109.63	118.44
7	A	1376	XXJ	CBH-NBI-CBF	-5.16	122.20	126.66
7	A	1376	XXJ	CAR-CBG-CBH	3.69	120.57	116.32
7	A	1376	XXJ	CBB-CAQ-CAY	3.31	120.10	116.62
7	A	1376	XXJ	CAQ-CBB-CBC	-3.12	119.89	123.98
7	A	1376	XXJ	CAL-CAY-CAQ	-2.60	119.92	123.29
7	A	1376	XXJ	CAS-CAZ-CAP	-2.54	117.74	121.83
7	A	1376	XXJ	CAU-SBJ-CBD	2.34	108.22	105.03
7	A	1376	XXJ	CAZ-CAP-NAV	-2.21	120.47	123.95
7	A	1376	XXJ	CAR-CAZ-CAP	2.19	118.83	116.71

There are no chirality outliers.

All (11) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
8	A	1377	GOL	O1-C1-C2-C3
8	A	1378	GOL	C1-C2-C3-O3
8	A	1378	GOL	O2-C2-C3-O3
8	С	1020	GOL	O1-C1-C2-C3
8	A	1377	GOL	O1-C1-C2-O2
8	С	1020	GOL	O1-C1-C2-O2
7	A	1376	XXJ	CAN-CBD-SBJ-OAE
7	A	1376	XXJ	CAZ-CAS-CAU-SBJ
7	A	1376	XXJ	CAM-CBD-SBJ-OAE
8	В	1299	GOL	O1-C1-C2-O2
8	С	1020	GOL	C1-C2-C3-O3

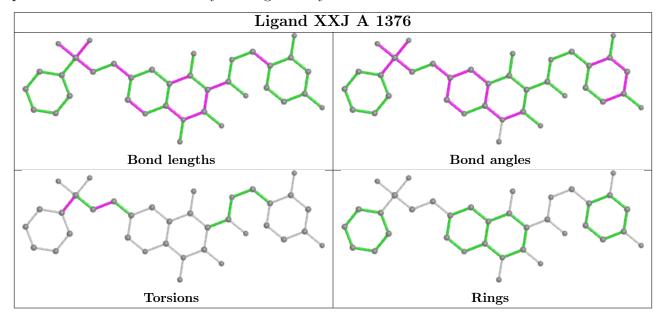
There are no ring outliers.



1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
7	A	1376	XXJ	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 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 $>$	$\#\mathrm{RSRZ}{>}2$	$OWAB(Å^2)$	Q < 0.9
1	A	367/395~(92%)	0.46	5 (1%) 75 76	42, 56, 104, 140	0
1	В	182/395~(46%)	0.70	13 (7%) 16 13	49, 68, 145, 169	0
2	С	19/19 (100%)	0.38	0 100 100	49, 64, 90, 124	0
3	D	17/17 (100%)	0.45	1 (5%) 22 20	52, 58, 98, 131	0
All	All	585/826~(70%)	0.53	19 (3%) 47 47	42, 59, 119, 169	0

All (19) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	В	280	ASN	5.4
1	В	279	ALA	5.0
1	В	282	ASP	4.7
1	A	357	HIS	3.6
1	В	281	GLN	3.6
1	В	286	LEU	3.5
1	A	356	ASP	3.1
1	A	15	LEU	3.0
1	В	231	LEU	2.9
1	В	234	LEU	2.7
1	В	260	VAL	2.7
1	A	358	LEU	2.6
1	В	283	THR	2.5
1	В	293	SER	2.5
3	D	17	DA	2.2
1	В	214	PRO	2.1
1	A	16	LEU	2.1
1	В	130	ILE	2.1
1	В	261	LEU	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 monosaccharides in this entry.

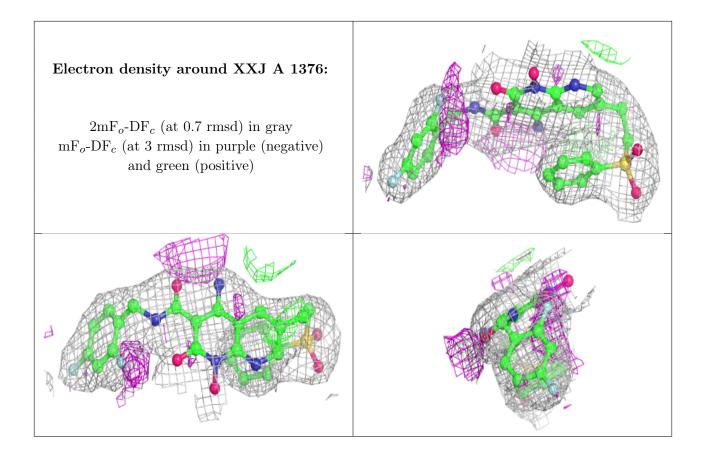
6.4 Ligands (i)

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	$\mathbf{B} ext{-}\mathbf{factors}(\mathbf{\mathring{A}}^2)$	Q < 0.9
8	GOL	В	1299	6/6	0.76	0.52	86,93,101,110	0
6	SO4	A	408	5/5	0.78	0.39	94,96,96,99	5
8	GOL	A	1377	6/6	0.84	0.25	100,101,107,113	0
5	MG	В	1404	1/1	0.84	0.24	115,115,115,115	0
6	SO4	A	409	5/5	0.85	0.25	130,134,137,138	0
6	SO4	A	407	5/5	0.88	0.19	113,123,125,129	0
8	GOL	A	1378	6/6	0.90	0.36	70,80,86,93	0
8	GOL	В	1298	6/6	0.91	0.49	72,74,82,91	0
8	GOL	С	1020	6/6	0.91	0.36	61,66,77,88	0
6	SO4	A	410	5/5	0.93	0.29	113,114,120,120	0
6	SO4	В	393	5/5	0.94	0.28	93,96,102,106	0
7	XXJ	A	1376	36/36	0.98	0.21	32,49,62,63	0
5	MG	A	394	1/1	0.99	0.10	50,50,50,50	0
5	MG	A	395	1/1	0.99	0.12	44,44,44,44	0
4	ZN	A	393	1/1	1.00	0.23	53,53,53,53	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.

