

Full wwPDB X-ray Structure Validation Report (i)

Jun 28, 2021 – 07:13 AM BST

PDB ID : 7A3K

Title: Crystal structure of DPP8 in complex with a b-lactam based inhibitor, A296.1

Authors: Ross, B.H.; Huber, R.

Deposited on : 2020-08-18

Resolution : 2.65 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 : 2.20

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)

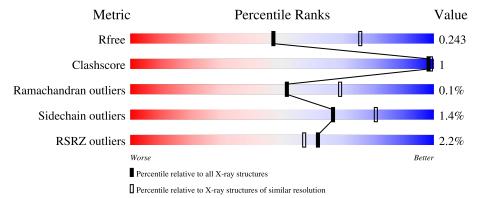
Validation Pipeline (wwPDB-VP) : 2.20

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 2.65 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	$\begin{array}{c} \text{Whole archive} \\ (\#\text{Entries}) \end{array}$	$\begin{array}{c} {\rm Similar\ resolution} \\ (\#{\rm Entries,\ resolution\ range(\mathring{A})}) \end{array}$
R_{free}	130704	1332 (2.68-2.64)
Clashscore	141614	1374 (2.68-2.64)
Ramachandran outliers	138981	1349 (2.68-2.64)
Sidechain outliers	138945	1349 (2.68-2.64)
RSRZ outliers	127900	1318 (2.68-2.64)

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	A	898	89%	•	9%
1	В	898	2%		9%
1	C	898	2%	•	9%

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
4	NA	С	906	-	-	-	X



2 Entry composition (i)

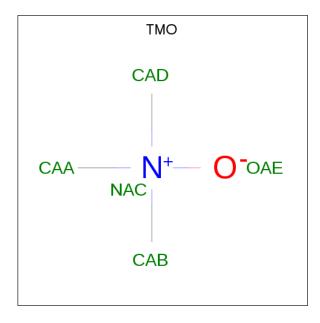
There are 6 unique types of molecules in this entry. The entry contains 20291 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Dipeptidyl peptidase 8.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace		
1	C	821	Total	С	N	О	S	0	1	0
1		021	6670	4286	1118	1239	27	U	1	0
1	Λ	821	Total	С	N	О	S	0	1	0
1	A	021	6670	4286	1118	1239	27	U	1	
1	D	820	Total	С	N	О	S	0	1	0
1	Б	020	6661	4281	1116	1237	27	0	1	0

• Molecule 2 is trimethylamine oxide (three-letter code: TMO) (formula: C₃H₉NO).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	С	1	Total C N O 5 3 1 1	0	0
2	A	1	Total C N O 5 3 1 1	0	0
2	В	1	Total C N O 5 3 1 1	0	0



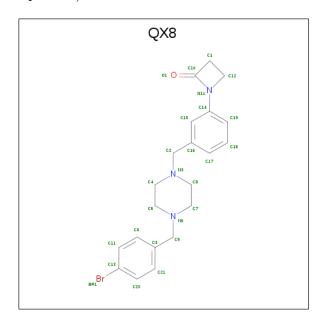
• Molecule 3 is CHLC	ORIDE ION (three-letter o	code: CL)	(formula: C	Cl).
----------------------	---------------------------	-----------	-------------	------

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	С	4	Total Cl 4 4	0	0
3	A	2	Total Cl 2 2	0	0
3	В	2	Total Cl 2 2	0	0

• Molecule 4 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	С	1	Total Na 1 1	0	0
4	A	1	Total Na 1 1	0	0
4	В	1	Total Na 1 1	0	0

• Molecule 5 is 1-[3-[[4-[(4-bromophenyl)methyl]piperazin-1-yl]methyl]phenyl]azetidin-2-one (three-letter code: QX8) (formula: $C_{21}H_{24}BrN_3O$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf		
5	С	1	Total	Br	С	N	О	0	0
9			26	1	21	3	1	0	
5	Λ	1	Total	Br	С	N	О	0	0
3	A	1	26	1	21	3	1	0	

Continued on next page...



 $Continued\ from\ previous\ page...$

Mol	Chain	Residues		Ato	oms			ZeroOcc	AltConf
5	D	1	Total	Br	С	N	О	0	0
)	Ъ	1	26	1	21	3	1	U	0

• Molecule 6 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	С	48	Total O 48 48	0	0
6	A	69	Total O 69 69	0	0
6	В	69	Total O 69 69	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.

in the sample, but not in the model, are shown in grey. • Molecule 1: Dipeptidyl peptidase 8 Chain C: MET TYPE P SER A ROOM OF THE P SER A ROOM OF T • Molecule 1: Dipeptidyl peptidase 8 Chain A: 89% MET TREP TO SERVE • Molecule 1: Dipeptidyl peptidase 8 Chain B: 9% 89% MET TIREP TO SER A SER A





4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants	163.26Å 250.38Å 261.20Å	Danagitan
a, b, c, α , β , γ	90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.05 - 2.65	Depositor
Resolution (A)	49.05 - 2.65	EDS
% Data completeness	100.0 (49.05-2.65)	Depositor
(in resolution range)	$100.0 \ (49.05 - 2.65)$	EDS
R_{merge}	0.06	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) > 1$	$2.00~({ m at}~2.65{ m \AA})$	Xtriage
Refinement program	REFMAC 5.8.0155	Depositor
D D	0.217 , 0.244	Depositor
R, R_{free}	0.219 , 0.243	DCC
R_{free} test set	7717 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å ²)	72.7	Xtriage
Anisotropy	0.407	Xtriage
Bulk solvent $k_{sol}(e/Å^3)$, $B_{sol}(Å^2)$	0.30 , 38.4	EDS
L-test for twinning ²	$ < L > = 0.51, < L^2> = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	20291	wwPDB-VP
Average B, all atoms (Å ²)	77.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 2.56% 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: TMO, QX8, CL, NA

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	0.35	0/6859	0.54	0/9306	
1	В	0.35	0/6850	0.55	0/9294	
1	С	0.35	0/6859	0.55	0/9306	
All	All	0.35	0/20568	0.55	0/27906	

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	A	6670	0	6490	7	0
1	В	6661	0	6482	8	0
1	С	6670	0	6490	7	0
2	A	5	0	9	0	0
2	В	5	0	9	0	0
2	С	5	0	9	0	0
3	A	2	0	0	0	0
3	В	2	0	0	0	0
3	С	4	0	0	0	0
4	A	1	0	0	0	0

Continued on next page...



Continued from previous page...

Mol	Chain	Non-H	$\mathbf{H}(\mathbf{model})$	H(added)	Clashes	Symm-Clashes
4	В	1	0	0	0	0
4	С	1	0	0	0	0
5	A	26	0	0	1	0
5	В	26	0	0	0	0
5	С	26	0	0	1	0
6	A	69	0	0	0	0
6	В	69	0	0	0	0
6	С	48	0	0	0	0
All	All	20291	0	19489	22	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 (22) 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)
1:C:118:ILE:HD12	1:C:599:LEU:HD22	1.92	0.52
1:C:762:LEU:HD13	1:C:811:VAL:HG21	1.94	0.50
1:C:434:THR:HG21	1:C:489:SER:HB2	1.98	0.45
1:B:118:ILE:HD12	1:B:599:LEU:CD2	2.47	0.45
1:C:273:LEU:HD13	1:C:279:ARG:NH2	2.31	0.45
1:C:118:ILE:HD12	1:C:599:LEU:CD2	2.47	0.44
1:B:302:LEU:HD22	1:B:390:ALA:HB1	1.99	0.44
1:C:782:THR:HA	1:C:811:VAL:HG22	1.99	0.44
1:A:273:LEU:HD13	1:A:279:ARG:NH2	2.35	0.42
1:B:118:ILE:HD12	1:B:599:LEU:HD22	2.00	0.42
1:A:118:ILE:HD12	1:A:599:LEU:CD2	2.49	0.42
1:A:762:LEU:HD13	1:A:811:VAL:HG21	2.02	0.42
1:B:238:ILE:HD13	1:B:348:ILE:HD13	2.01	0.42
1:A:376:GLU:HG3	1:A:397:ARG:HB2	2.02	0.41
1:A:434:THR:HG21	1:A:489:SER:HB2	2.02	0.41
1:B:189:VAL:HG13	1:B:204:PRO:HA	2.02	0.41
1:A:782:THR:HA	1:A:811:VAL:HG22	2.01	0.41
1:C:880:LEU:HD23	5:C:907:QX8:BR1	2.76	0.41
1:B:406:LEU:HD11	1:B:464:ILE:HD13	2.02	0.41
1:A:880:LEU:HD23	5:A:905:QX8:BR1	2.76	0.41
1:B:376:GLU:HG3	1:B:397:ARG:HB2	2.03	0.41
1:B:657:GLN:HE21	1:B:657:GLN:HA	1.85	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	Percer	$_{ m tiles}$
1	A	816/898 (91%)	784 (96%)	31 (4%)	1 (0%)	51	69
1	В	815/898 (91%)	788 (97%)	26 (3%)	1 (0%)	51	69
1	С	816/898 (91%)	788 (97%)	27 (3%)	1 (0%)	51	69
All	All	2447/2694 (91%)	2360 (96%)	84 (3%)	3 (0%)	51	69

All (3) Ramachandran outliers are listed below:

Mol	Chain	${f Res}$	Type
1	С	561	GLY
1	В	445	ILE
1	A	561	GLY

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	729/795~(92%)	719 (99%)	10 (1%)	67 81
1	В	$728/795 \; (92\%)$	718 (99%)	10 (1%)	67 81
1	С	729/795 (92%)	719 (99%)	10 (1%)	67 81
All	All	$2186/2385 \ (92\%)$	2156 (99%)	30 (1%)	67 81

All (30) residues with a non-rotameric sidechain are listed below:



3.6.1	~1 •	_	_
Mol	Chain	Res	Type
1	С	324	ARG
1	С	473	LYS
1	С	545	ASP
1	С	550	HIS
1	С	592	LYS
1	С	614	LYS
1	С	627	LEU
1	С	655	ASP
1	С	718	PHE
1	С	829	HIS
1	A	88	ARG
1	C C C C C A A A	214	ILE
1	A	353	GLU
1	A	473	LYS
1	A A A A A	545	ASP
1	A	592	LYS
1	A	627	LEU
1	A	655	ASP
1	A	704	ASN
1	A	718	PHE
1	В	170	ASP
1	В	189	VAL
1	В	324	ARG
1	В	473	LYS
1	В	545	ASP
1	В	614	LYS
1	В	657	GLN
1	В	704	ASN
1	В	718	PHE
1	В	829	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	С	173	GLN
1	С	882	HIS
1	A	111	ASN
1	A	123	ASN
1	A	200	GLN
1	A	657	GLN
1	В	657	GLN



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 17 ligands modelled in this entry, 11 are monoatomic - leaving 6 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	Tune	Chain	Res	Link	Вс	ond leng	ths	В	ond ang	les
MIOI	Type	Chain	res	LIIIK	Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	TMO	В	901	_	4,4,4	6.22	1 (25%)	6,6,6	0.18	0
5	QX8	С	907	-	27,29,29	0.67	0	34,40,40	1.44	2 (5%)
5	QX8	A	905	-	27,29,29	0.64	0	34,40,40	1.45	2 (5%)
2	TMO	A	901	-	4,4,4	6.21	1 (25%)	6,6,6	0.19	0
2	TMO	С	901	-	4,4,4	6.28	1 (25%)	6,6,6	0.18	0
5	QX8	В	905	-	27,29,29	0.64	0	34,40,40	1.46	2 (5%)

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
5	QX8	С	907	_	-	0/12/31/31	0/4/4/4
5	QX8	A	905	_	-	0/12/31/31	0/4/4/4
5	QX8	В	905	-	-	0/12/31/31	0/4/4/4



All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	${ m Observed}({ m \AA})$	$\operatorname{Ideal}(ext{\AA})$
2	С	901	TMO	OAE-NAC	-12.54	1.25	1.42
2	В	901	TMO	OAE-NAC	-12.40	1.25	1.42
2	A	901	TMO	OAE-NAC	-12.38	1.25	1.42

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$Observed(^o)$	$Ideal(^{o})$
5	A	905	QX8	O1-C10-N11	7.19	136.69	131.45
5	С	907	QX8	O1-C10-N11	7.05	136.59	131.45
5	В	905	QX8	O1-C10-N11	7.03	136.57	131.45
5	В	905	QX8	C1-C10-N11	-3.10	90.85	92.29
5	С	907	QX8	C1-C10-N11	-2.90	90.95	92.29
5	A	905	QX8	C1-C10-N11	-2.84	90.97	92.29

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

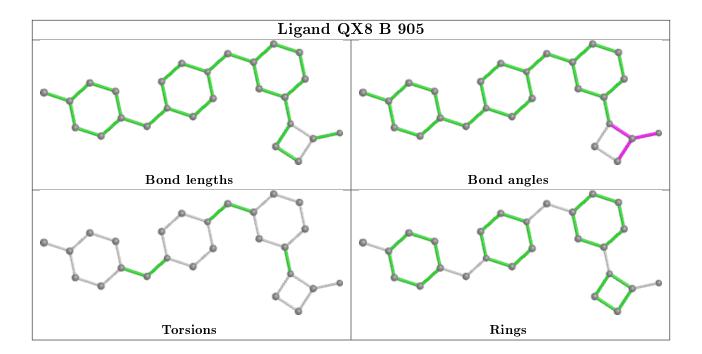
2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	С	907	QX8	1	0
5	A	905	QX8	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 $>$	$\#\mathrm{RSRZ}{>}2$	$OWAB(\AA^2)$	Q < 0.9
1	A	821/898 (91%)	0.05	20 (2%) 59 54	54, 73, 110, 142	0
1	В	820/898 (91%)	0.07	19 (2%) 60 56	53, 70, 109, 142	0
1	С	821/898 (91%)	0.13	15 (1%) 68 68	55, 75, 112, 142	0
All	All	2462/2694 (91%)	0.08	54 (2%) 62 5	53, 73, 110, 142	0

All (54) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	С	139	PHE	5.2
1	В	256	LEU	5.0
1	С	256	LEU	4.3
1	A	139	PHE	4.2
1	В	259	MET	3.5
1	В	108	ASN	3.5
1	A	258	ASN	3.5
1	A	138	LEU	3.4
1	С	107	GLU	3.2
1	С	76	MET	3.1
1	A	261	GLU	3.1
1	С	108	ASN	3.1
1	В	868	ARG	3.0
1	В	659	GLY	3.0
1	A	127	VAL	2.9
1	A	259	MET	2.8
1	В	624	ALA	2.8
1	С	70	LYS	2.7
1	С	490	LYS	2.7
1	A	256	LEU	2.7
1	С	417	ASP	2.6
1	A	108	ASN	2.6
1	С	106	GLY	2.6

Continued on next page...



Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	С	487	LYS	2.5
1	С	261	GLU	2.5
1	A	106	GLY	2.5
1	A	850	ARG	2.4
1	С	323	THR	2.4
1	В	110	GLU	2.4
1	В	70	LYS	2.4
1	A	107	GLU	2.4
1	В	658	PRO	2.3
1	С	138	LEU	2.3
1	В	76	MET	2.3
1	В	139	PHE	2.3
1	A	487	LYS	2.3
1	A	260	GLU	2.3
1	A	257	ALA	2.2
1	A	628	PRO	2.2
1	В	106	GLY	2.2
1	В	490	LYS	2.2
1	В	109	ARG	2.2
1	A	140	GLN	2.1
1	A	293	PRO	2.1
1	С	259	MET	2.1
1	В	255	GLU	2.1
1	В	262	ASP	2.1
1	В	212	PRO	2.1
1	В	422	ARG	2.1
1	A	322	GLU	2.0
1	В	485	ILE	2.0
1	С	258	ASN	2.0
1	A	417	ASP	2.0
1	A	110	GLU	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.

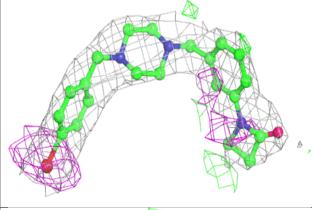
Mol	Type	Chain	Res	Atoms	RSCC	RSR	${f B\text{-}factors}({f \AA}^2)$	Q < 0.9
4	NA	С	906	1/1	0.78	0.81	79,79,79,79	0
3	CL	A	903	1/1	0.80	0.09	98,98,98,98	0
3	CL	С	904	1/1	0.81	0.15	94,94,94,94	0
5	QX8	Α	905	26/26	0.83	0.28	104,109,111,118	0
4	NA	В	904	1/1	0.84	0.98	89,89,89,89	0
5	QX8	В	905	26/26	0.85	0.27	92,95,101,116	0
5	QX8	С	907	26/26	0.86	0.24	97,105,114,115	0
4	NA	A	904	1/1	0.88	0.52	77,77,77,77	0
3	CL	С	902	1/1	0.90	0.17	110,110,110,110	0
3	CL	В	903	1/1	0.91	0.07	96,96,96,96	0
3	CL	В	902	1/1	0.93	0.06	89,89,89,89	0
3	CL	A	902	1/1	0.94	0.17	91,91,91,91	0
3	CL	С	903	1/1	0.94	0.18	87,87,87,87	0
2	TMO	A	901	5/5	0.95	0.30	83,84,85,86	0
3	CL	С	905	1/1	0.95	0.05	95,95,95,95	0
2	TMO	В	901	5/5	0.96	0.26	83,83,84,85	0
2	TMO	С	901	5/5	0.97	0.29	83,83,84,85	0

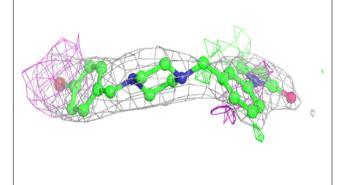
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

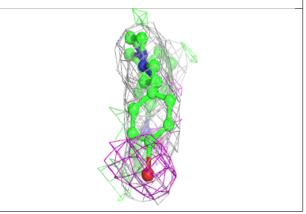


Electron density around QX8 A 905:

 $2 \mathrm{mF}_o\text{-DF}_c$ (at 0.7 rmsd) in gray $\mathrm{mF}_o\text{-DF}_c$ (at 3 rmsd) in purple (negative) and green (positive)

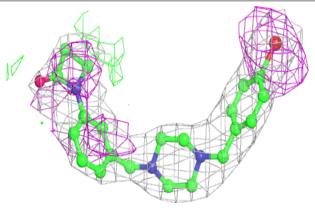


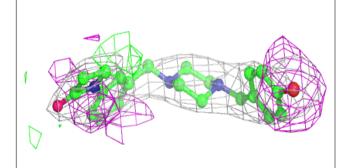


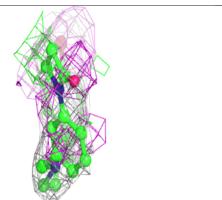


Electron density around QX8 B 905:

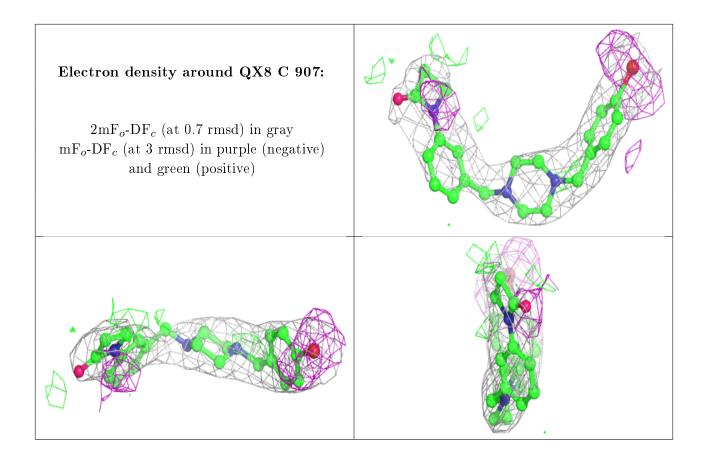
 $2 \mathrm{mF}_o\text{-}\mathrm{DF}_c$ (at 0.7 rmsd) in gray $\mathrm{mF}_o\text{-}\mathrm{DF}_c$ (at 3 rmsd) in purple (negative) and green (positive)











6.5 Other polymers (i)

There are no such residues in this entry.

