

Full wwPDB X-ray Structure Validation Report (i)

Nov 10, 2024 – 02:29 PM EST

PDB ID	:	1MEH
Title	:	Inosine Monophosphate Dehydrogenase (IMPDH) From Tritrichomonas Foe-
		tus with IMP and MOA bound
Authors	:	Prosise, G.L.; Luecke, H.
Deposited on	:	2002-08-08
Resolution	:	1.95 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:

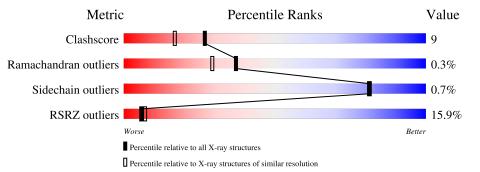
MolProbity : 4.02b-467	
Mogul : $2022.3.0$, CSD as543be (2022)	
Xtriage (Phenix) : 1.20.1	
EDS : 3.0	
buster-report : $1.1.7$ (2018)	
Percentile statistics : 20231227.v01 (using entries in the PDB archive Decemb	er 27th 2023)
CCP4 : 9.0.003 (Gargrove)	,
Density-Fitness : 1.0.11	
Ideal geometry (proteins) : Engh & Huber (2001)	
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)	
Validation Pipeline (wwPDB-VP) : 2.39	

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 1.95 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	$egin{array}{c} { m Whole \ archive} \ (\#{ m Entries}) \end{array}$	${f Similar\ resolution}\ (\#{ m Entries,\ resolution\ range}({ m \AA}))$
Clashscore	180529	3412(1.96-1.96)
Ramachandran outliers	177936	3390 (1.96-1.96)
Sidechain outliers	177891	3390 (1.96-1.96)
RSRZ outliers	164620	3186 (1.96-1.96)

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					
			11%					
1	А	503		62%	8%	30%		



$1 \mathrm{MEH}$

2 Entry composition (i)

There are 5 unique types of molecules in this entry. The entry contains 2949 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 INOSINE-5'-MONOPHOSPHATE DEHYDROGENASE.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace		
1	А	354	Total 2709	C 1716	N 461	O 517	S 15	0	0	0

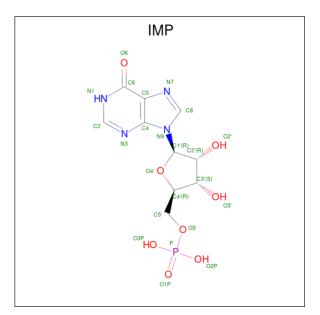
There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
А	319	CSO	CYS	modified residue	UNP P50097

• Molecule 2 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	А	1	Total K 1 1	0	0

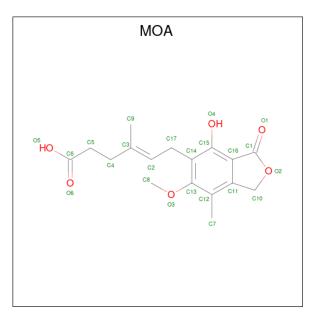
• Molecule 3 is INOSINIC ACID (three-letter code: IMP) (formula: $C_{10}H_{13}N_4O_8P$).





Mol	Chain	Residues	Atoms			ZeroOcc	AltConf		
3	А	1	Total	С	Ν	0	Р	0	0
		1	23	10	4	8	1	Ŭ	Ŭ

• Molecule 4 is MYCOPHENOLIC ACID (three-letter code: MOA) (formula: $C_{17}H_{20}O_6$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	А	1	Total 23	C 17	0 6	0	0

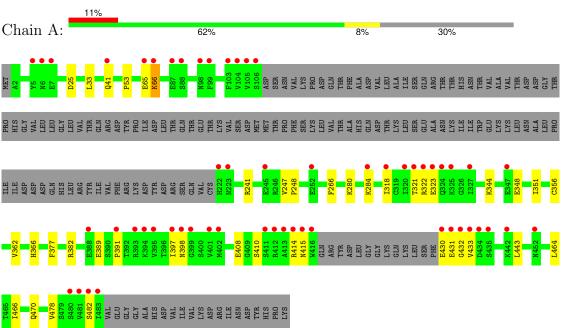
• Molecule 5 is water.

[Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
	5	А	193	Total O 193 193	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: INOSINE-5'-MONOPHOSPHATE DEHYDROGENASE



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 4 3 2	Depositor
Cell constants	153.48Å 153.48Å 153.48Å	Depositor
a, b, c, α , β , γ	90.00° 90.00° 90.00°	Depositor
Resolution (Å)	19.98 - 1.95	Depositor
Resolution (A)	19.98 - 1.95	EDS
% Data completeness	98.6 (19.98-1.95)	Depositor
(in resolution range)	88.9 (19.98-1.95)	EDS
R _{merge}	0.06	Depositor
R _{sym}	(Not available)	Depositor
$< I/\sigma(I) > 1$	$1.41 (at 1.94 \text{\AA})$	Xtriage
Refinement program	CNS	Depositor
B B.	0.243 , 0.272	Depositor
R, R_{free}	0.239 , (Not available)	DCC
R_{free} test set	No test flags present.	wwPDB-VP
Wilson B-factor $(Å^2)$	26.6	Xtriage
Anisotropy	0.000	Xtriage
Bulk solvent $k_{sol}(e/Å^3), B_{sol}(Å^2)$	0.38,41.0	EDS
L-test for twinning ²	$ \langle L \rangle = 0.50, \langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	2949	wwPDB-VP
Average B, all atoms $(Å^2)$	32.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 6.12% of the height of the origin peak. No significant pseudotranslation is detected.

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.



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: IMP, CSO, MOA, K

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
	Chain	RMSZ	# Z > 5	RMSZ	# Z > 5
1	А	0.31	0/2748	0.57	0/3704

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	2709	0	2701	50	0
2	А	1	0	0	0	0
3	А	23	0	11	0	0
4	А	23	0	19	1	0
5	А	193	0	0	1	0
All	All	2949	0	2731	50	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 9.

All (50) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.



1	MEH

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:41:GLN:HE22	1:A:351:ILE:HG12	1.10	1.16
1:A:382:ARG:HH11	1:A:382:ARG:HB3	1.25	1.01
1:A:66:LYS:H	1:A:66:LYS:HD3	1.26	1.00
1:A:318:ILE:HD12	1:A:318:ILE:H	1.27	0.96
1:A:41:GLN:NE2	1:A:351:ILE:HG12	1.87	0.90
1:A:66:LYS:H	1:A:66:LYS:CD	1.87	0.86
1:A:410:SER:HA	1:A:432:GLY:HA2	1.63	0.80
1:A:322:ARG:HD3	1:A:323:GLU:H	1.45	0.79
1:A:382:ARG:HB3	1:A:382:ARG:NH1	1.98	0.79
1:A:241:ARG:HH11	1:A:241:ARG:HB2	1.54	0.73
1:A:431:GLU:HG2	1:A:432:GLY:H	1.52	0.72
1:A:241:ARG:HB2	1:A:241:ARG:NH1	2.08	0.69
1:A:322:ARG:HB2	1:A:433:VAL:HG22	1.81	0.63
1:A:318:ILE:H	1:A:318:ILE:CD1	2.04	0.62
1:A:344:LYS:O	1:A:348:GLU:HG3	1.99	0.62
1:A:318:ILE:HD12	1:A:318:ILE:N	2.08	0.61
1:A:41:GLN:HE22	1:A:351:ILE:CG1	2.01	0.60
1:A:66:LYS:HD3	1:A:66:LYS:N	2.09	0.59
1:A:284:LYS:N	1:A:284:LYS:HD2	2.19	0.57
1:A:362:VAL:H	1:A:366:HIS:HD2	1.51	0.56
1:A:414:ARG:HH21	1:A:430:GLU:HB3	1.72	0.55
1:A:247:VAL:HB	1:A:248:PRO:HD3	1.89	0.54
1:A:321:THR:OG1	1:A:433:VAL:HG13	2.10	0.52
1:A:466:ILE:O	1:A:470:GLN:HG3	2.10	0.50
1:A:356:CYS:HB2	1:A:377:PHE:CE2	2.47	0.50
1:A:66:LYS:CD	1:A:66:LYS:N	2.66	0.49
1:A:322:ARG:HB2	1:A:433:VAL:CG2	2.42	0.48
1:A:25:ASP:OD1	1:A:464:LEU:HD11	2.13	0.48
1:A:478:VAL:HG12	1:A:482:SER:OG	2.15	0.47
1:A:443:LEU:C	1:A:443:LEU:HD23	2.35	0.47
1:A:410:SER:CA	1:A:432:GLY:HA2	2.39	0.46
1:A:397:ILE:HG22	1:A:398:ASN:ND2	2.30	0.46
1:A:362:VAL:H	1:A:366:HIS:CD2	2.34	0.45
1:A:431:GLU:HG2	1:A:432:GLY:N	2.26	0.45
1:A:410:SER:HB3	1:A:433:VAL:H	1.82	0.45
1:A:66:LYS:HG2	5:A:911:HOH:O	2.16	0.44
1:A:33:LEU:HB3	1:A:53:PRO:HD3	1.99	0.44
1:A:322:ARG:HD3	1:A:323:GLU:N	2.23	0.44
1:A:414:ARG:HH21	1:A:430:GLU:CB	2.30	0.43
1:A:66:LYS:HG2	1:A:389:GLU:O	2.19	0.43
1:A:318:ILE:CG2	1:A:433:VAL:HB	2.48	0.43
1:A:322:ARG:NH2	1:A:432:GLY:O	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:65:GLU:CD	1:A:65:GLU:H	2.23	0.42
1:A:65:GLU:HG2	1:A:66:LYS:CD	2.49	0.42
1:A:408:GLU:O	4:A:600:MOA:H93	2.20	0.42
1:A:66:LYS:HE3	1:A:391:PRO:HB3	2.01	0.42
1:A:284:LYS:N	1:A:284:LYS:CD	2.83	0.42
1:A:382:ARG:HH11	1:A:382:ARG:CB	2.14	0.41
1:A:241:ARG:HH11	1:A:241:ARG:CB	2.27	0.40
1:A:280:LYS:O	1:A:280:LYS:HD3	2.21	0.40

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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	А	347/503~(69%)	335~(96%)	11 (3%)	1 (0%)	37 29	

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	А	415	ASN

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	288/423~(68%)	286~(99%)	2(1%)	81 81	

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

Mol	Chain	Res	Type
1	А	66	LYS
1	А	266	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (8) such sidechains are listed below:

Mol	Chain	Res	Type
1	А	6	ASN
1	А	13	ASN
1	А	41	GLN
1	А	229	GLN
1	А	331	GLN
1	А	366	HIS
1	А	398	ASN
1	А	415	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)

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).

Γ	Mol	Type	Chain	Dec	Link	B	ond leng	gths	В	ond ang	gles
	WIOI	туре	ype Chain Res Link	LIIIK	Counts	RMSZ	# Z >2	Counts	RMSZ	# Z > 2	
	1	CSO	А	319	1	3,6,7	0.65	0	$1,\!6,\!8$	0.52	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.

Ι	Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
	1	CSO	А	319	1	-	0/1/5/7	-

There are no bond length outliers.

There are no bond angle outliers.

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 oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 3 ligands modelled in this entry, 1 is monoatomic - leaving 2 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 Ty	Turne	Type Chain		Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Dec		Bo	Bond lengths			Bond angles		
IVIOI	туре	Chain	Res	Link	Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z >2											
3	IMP	А	602	-	21,25,25	1.61	4 (19%)	22,38,38	1.44	2 (9%)											
4	MOA	А	600	-	24,24,24	1.69	6 (25%)	34,34,34	1.83	9 (26%)											

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	IMP	А	602	-	-	0/6/26/26	0/3/3/3
4	MOA	А	600	-	-	2/12/21/21	0/2/2/2

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$\operatorname{Observed}(\operatorname{\AA})$	Ideal(Å)
3	А	602	IMP	C2-N3	3.95	1.36	1.29
4	А	600	MOA	C13-C14	3.47	1.45	1.39
4	А	600	MOA	C13-C12	3.31	1.45	1.39
3	А	602	IMP	C6-N1	2.99	1.43	1.38
4	А	600	MOA	C11-C12	2.98	1.45	1.40
3	А	602	IMP	C2-N1	2.93	1.40	1.35
3	А	602	IMP	C8-N7	-2.79	1.30	1.34
4	А	600	MOA	C15-C14	2.78	1.44	1.40
4	А	600	MOA	O2-C1	-2.16	1.34	1.36
4	А	600	MOA	C16-C1	2.10	1.50	1.47

All (11) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
4	А	600	MOA	C10-O2-C1	6.46	114.86	110.64
3	А	602	IMP	C4'-O4'-C1'	-4.02	106.24	109.92
4	А	600	MOA	O2-C1-C16	-3.58	105.48	108.28
4	А	600	MOA	O2-C10-C11	-3.09	102.12	104.57
4	А	600	MOA	O2-C1-O1	3.00	124.25	121.09
3	А	602	IMP	O5'-P-O1P	2.60	113.46	106.44
4	А	600	MOA	C9-C3-C4	2.40	119.39	115.23
4	А	600	MOA	C17-C2-C3	-2.26	124.19	127.42
4	А	600	MOA	C15-C14-C13	2.18	120.58	117.65
4	А	600	MOA	C4-C3-C2	-2.18	116.28	121.17
4	А	600	MOA	C14-C13-C12	-2.05	120.13	122.79

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	А	600	MOA	C4-C5-C6-O6
4	А	600	MOA	C4-C5-C6-O5

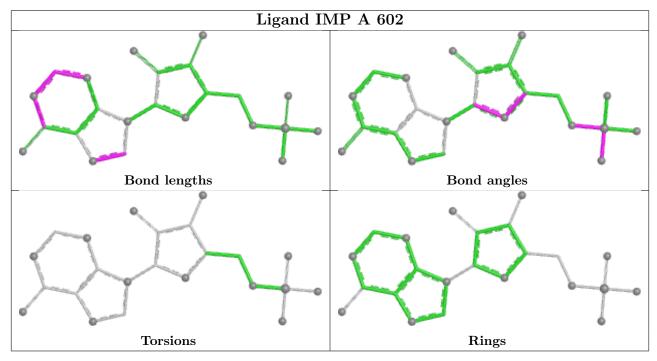
There are no ring outliers.

1 monomer is involved in 1 short contact:

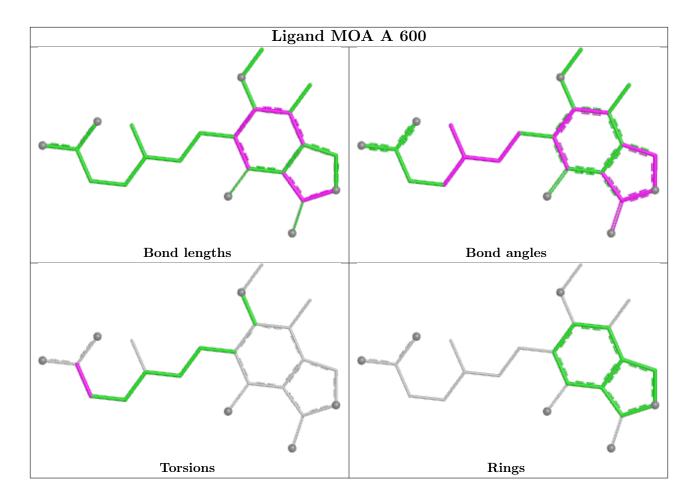


M	ol	Chain	Res	Type	Clashes	Symm-Clashes
4		А	600	MOA	1	0

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 sufficient must be 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	353/503~(70%)	0.74	56 (15%) 6 7	19, 28, 56, 73	0

All (56) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	А	433	VAL	8.1
1	А	432	GLY	7.3
1	А	320	ILE	6.9
1	А	416	TRP	6.9
1	А	321	THR	6.9
1	А	415	ASN	6.8
1	А	483	ILE	6.1
1	А	431	GLU	5.1
1	А	414	ARG	4.7
1	А	104	VAL	4.3
1	А	105	VAL	4.2
1	А	322	ARG	4.2
1	А	398	ASN	4.2
1	А	413	ALA	4.2
1	А	222	HIS	4.1
1	А	430	GLU	3.8
1	А	324	GLN	3.8
1	А	482	SER	3.7
1	А	325	LYS	3.7
1	А	103	PHE	3.6
1	А	318	ILE	3.5
1	А	6	ASN	3.5
1	А	395	VAL	3.4
1	А	481	VAL	3.4
1	А	41	GLN	3.3
1	А	411	SER	3.3
1	A	106	SER	3.1

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Mol	Chain	Res	Type	RSRZ
1	А	323	GLU	3.0
1	А	88	SER	2.9
1	А	87	GLU	2.8
1	А	393	ARG	2.7
1	А	397	ILE	2.6
1	А	388	GLU	2.6
1	А	252	GLU	2.5
1	А	442	LYS	2.5
1	А	347	GLU	2.5
1	А	245	GLU	2.5
1	А	7	GLU	2.4
1	А	284	LYS	2.4
1	А	399	GLY	2.4
1	А	65	GLU	2.4
1	А	66	LYS	2.3
1	А	391	PRO	2.3
1	А	412	ARG	2.3
1	А	394	LYS	2.2
1	А	5	TYR	2.2
1	А	401	VAL	2.1
1	А	402	MET	2.1
1	А	327	ILE	2.1
1	А	480	SER	2.1
1	А	98	ASN	2.1
1	А	223	ASN	2.1
1	А	434	ASP	2.0
1	А	99	PHE	2.0
1	А	435	SER	2.0
1	А	452	ASN	2.0

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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	$\mathbf{B} ext{-factors}(\mathbf{A}^2)$	Q < 0.9
1	CSO	А	319	7/8	0.87	0.16	48,49,52,53	0



6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

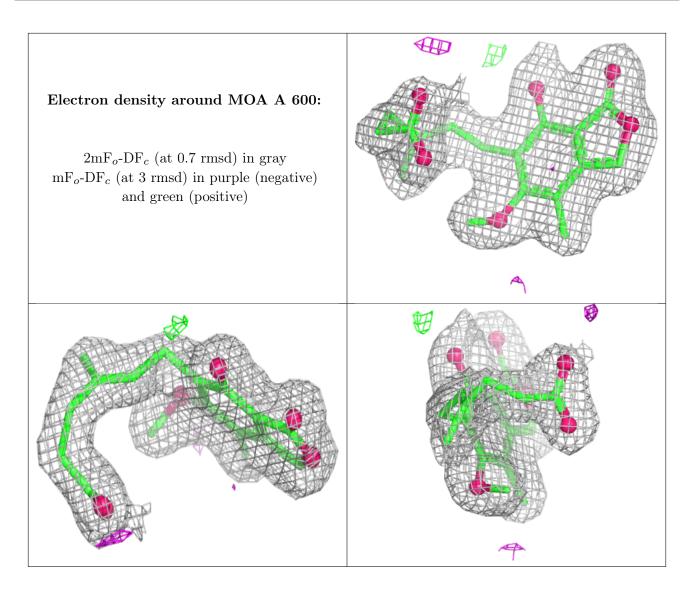
6.4 Ligands (i)

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.

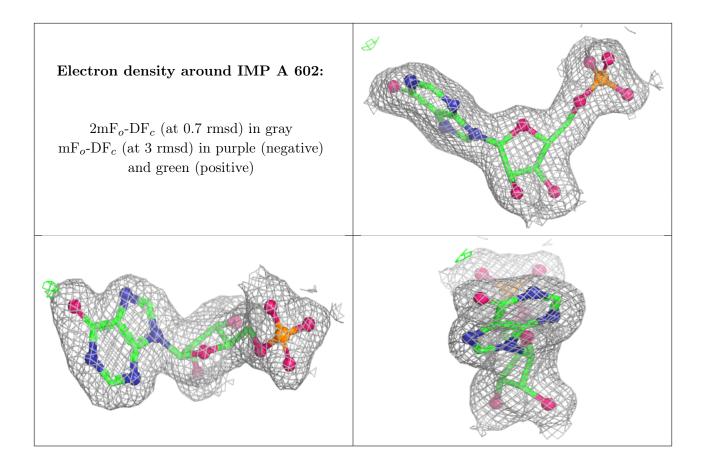
Mol	Type	Chain	Res	Atoms	RSCC	RSR	$\mathbf{B} ext{-factors}(\mathrm{\AA}^2)$	Q<0.9
4	MOA	А	600	23/23	0.92	0.11	$29,\!30,\!35,\!37$	0
3	IMP	А	602	23/23	0.96	0.07	21,25,26,27	0
2	Κ	А	900	1/1	0.97	0.11	29,29,29,29	1

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.

