



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 5, 2024 – 07:09 pm BST

PDB ID : 8RLJ
Title : Structure of the apo form of PIB-1 in an Orthorombic space group
Authors : Medrano, F.J.; Romero, A.
Deposited on : 2024-01-03
Resolution : 2.45 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 ⓘ 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 ⓘ](#)) were used in the production of this report:

MolProbity : **FAILED**
Xtrriage (Phenix) : 1.13
EDS : **FAILED**
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.37.1

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.45 Å.

There are no overall percentile quality scores available for this entry.

MolProbity and EDS failed to run properly - the sequence quality summary graphics cannot be shown.

2 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 18086 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 Class C beta-lactamase-related serine hydrolase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	346	Total	C	N	O	S	0	0	0
			2739	1730	488	514	7			
1	B	385	Total	C	N	O	S	0	0	0
			3041	1927	536	571	7			
1	C	386	Total	C	N	O	S	0	0	0
			3048	1932	537	572	7			
1	D	382	Total	C	N	O	S	0	0	0
			3020	1916	533	564	7			
1	E	383	Total	C	N	O	S	0	0	0
			3033	1923	534	569	7			
1	F	372	Total	C	N	O	S	0	0	0
			2953	1874	520	552	7			

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	25	PRO	ALA	cloning artifact	UNP A0A1J0J3U4
B	25	PRO	ALA	cloning artifact	UNP A0A1J0J3U4
C	25	PRO	ALA	cloning artifact	UNP A0A1J0J3U4
D	25	PRO	ALA	cloning artifact	UNP A0A1J0J3U4
E	25	PRO	ALA	cloning artifact	UNP A0A1J0J3U4
F	25	PRO	ALA	cloning artifact	UNP A0A1J0J3U4

- Molecule 2 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	37	Total	O	0	0
			37	37		
2	B	43	Total	O	0	0
			43	43		
2	C	63	Total	O	0	0
			63	63		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	D	51	Total 51	O 51	0	0
2	E	35	Total 35	O 35	0	0
2	F	23	Total 23	O 23	0	0

MolProbity and EDS failed to run properly - this section is therefore empty.

3 Data and refinement statistics

EDS failed to run properly - this section is therefore incomplete.

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	77.76Å 100.82Å 269.67Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.55 – 2.45	Depositor
% Data completeness (in resolution range)	99.8 (49.55-2.45)	Depositor
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.64 (at 2.45Å)	Xtrriage
Refinement program	PHENIX dev_4746, PHENIX dev_4746	Depositor
R, R_{free}	0.222 , 0.271	Depositor
Wilson B-factor (Å ²)	37.2	Xtrriage
Anisotropy	0.464	Xtrriage
L-test for twinning ²	$\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.29$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
Total number of atoms	18086	wwPDB-VP
Average B, all atoms (Å ²)	51.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.64% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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.

4 Model quality [i](#)

4.1 Standard geometry [i](#)

MolProbity failed to run properly - this section is therefore empty.

4.2 Too-close contacts [i](#)

MolProbity failed to run properly - this section is therefore empty.

4.3 Torsion angles [i](#)

4.3.1 Protein backbone [i](#)

MolProbity failed to run properly - this section is therefore empty.

4.3.2 Protein sidechains [i](#)

MolProbity failed to run properly - this section is therefore empty.

4.3.3 RNA [i](#)

MolProbity failed to run properly - this section is therefore empty.

4.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

4.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

4.6 Ligand geometry [i](#)

There are no ligands in this entry.

4.7 Other polymers [i](#)

There are no such residues in this entry.

4.8 Polymer linkage issues

There are no chain breaks in this entry.

5 Fit of model and data [i](#)

5.1 Protein, DNA and RNA chains [i](#)

EDS failed to run properly - this section is therefore empty.

5.2 Non-standard residues in protein, DNA, RNA chains [i](#)

EDS failed to run properly - this section is therefore empty.

5.3 Carbohydrates [i](#)

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5.4 Ligands [i](#)

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