Full wwPDB X-ray Structure Validation Report ⓘ

Oct 1, 2023 – 10:32 PM EDT

PDB ID	:	6NLF
Title	:	1.45 A resolution structure of apo BfrB from Pseudomonas aeruginosa
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Deposited on	:	2019-01-08
Resolution	:	1.45 Å(reported)

The following versions of software and data (see references ⓘ) were used in the production of this report:

MolProbity	:	FAILED
Xtriage (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)	:	2.35.1

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 1.45 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 3 unique types of molecules in this entry. The entry contains 18267 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 Ferroxidase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	156	Total 1324	C 836	N 224	O 256	S 8	0	7	0
1	B	156	Total 1307	C 826	N 219	O 254	S 8	0	6	0
1	C	156	Total 1312	C 828	N 221	O 255	S 8	0	6	0
1	D	156	Total 1315	C 831	N 222	O 254	S 8	0	6	0
1	E	156	Total 1307	C 826	N 219	O 254	S 8	0	6	0
1	F	156	Total 1316	C 831	N 220	O 257	S 8	0	7	0
1	G	156	Total 1328	C 838	N 225	O 257	S 8	0	8	0
1	H	156	Total 1315	C 830	N 222	O 255	S 8	0	6	0
1	I	156	Total 1318	C 832	N 223	O 255	S 8	0	6	0
1	J	156	Total 1327	C 838	N 225	O 256	S 8	0	7	0
1	K	156	Total 1324	C 837	N 224	O 255	S 8	0	7	0
1	L	156	Total 1323	C 836	N 223	O 256	S 8	0	7	0

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	1	Total 1	K 1	0	0
2	B	1	Total 1	K 1	0	0

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

- Molecule 3 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	203	Total 203	O 203	0	0
3	B	197	Total 197	O 197	0	0
3	C	211	Total 211	O 211	0	0
3	D	203	Total 203	O 203	0	0
3	E	213	Total 213	O 213	0	0
3	F	201	Total 201	O 201	0	0
3	G	184	Total 184	O 184	0	0
3	H	192	Total 192	O 192	0	0
3	I	214	Total 214	O 214	0	0
3	J	223	Total 223	O 223	0	0
3	K	191	Total 191	O 191	0	0
3	L	216	Total 216	O 216	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	C 2 2 21	Depositor
Cell constants a, b, c, α, β, γ	129.73Å　197.77Å　204.24Å 90.00°　90.00°　90.00°	Depositor
Resolution (Å)	37.18　–　1.45	Depositor
% Data completeness (in resolution range)	99.9 (37.18-1.45)	Depositor
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$<I/\sigma(I)>$ [1]	2.04 (at 1.45Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.147　,　0.165	Depositor
Wilson B-factor (Å^2)	13.7	Xtriage
Anisotropy	0.206	Xtriage
L-test for twinning[2]	$<\|L\|> = 0.48, <L^2> = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	18267	wwPDB-VP
Average B, all atoms (Å^2)	17.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.62% of the height of the origin peak. No significant pseudotranslation is detected.*

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[1]Intensities estimated from amplitudes.

[2]Theoretical 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.

4 Model quality ⓘ

4.1 Standard geometry ⓘ

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

4.2 Too-close contacts ⓘ

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

4.3 Torsion angles ⓘ

4.3.1 Protein backbone ⓘ

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

4.3.2 Protein sidechains ⓘ

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

4.3.3 RNA ⓘ

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

4.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

4.5 Carbohydrates ⓘ

There are no monosaccharides in this entry.

4.6 Ligand geometry ⓘ

Of 3 ligands modelled in this entry, 3 are monoatomic - leaving 0 for Mogul analysis.

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.

4.7 Other polymers ⓘ

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 ⓘ

5.1 Protein, DNA and RNA chains ⓘ

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

5.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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

5.3 Carbohydrates ⓘ

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

5.4 Ligands ⓘ

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

5.5 Other polymers ⓘ

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