



Full wwPDB X-ray Structure Validation Report ⓘ

Apr 27, 2026 – 08:14 PM EDT

PDB ID : 3D8A / pdb_00003d8a
Title : Co-crystal structure of TraM-TraD complex.
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Deposited on : 2008-05-22
Resolution : 2.55 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**
Xtriage (Phenix) : 2.0
EDS : **FAILED**
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

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 2.55 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 4468 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 Relaxosome protein TraM.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	63	Total	C	N	O	S	0	0	0
			501	318	82	98	3			
1	B	63	Total	C	N	O	S	0	0	0
			501	318	82	98	3			
1	C	63	Total	C	N	O	S	0	0	0
			501	318	82	98	3			
1	D	63	Total	C	N	O	S	0	0	0
			501	318	82	98	3			
1	E	63	Total	C	N	O	S	0	0	0
			501	318	82	98	3			
1	F	63	Total	C	N	O	S	0	0	0
			501	318	82	98	3			
1	G	63	Total	C	N	O	S	0	0	0
			501	318	82	98	3			
1	H	63	Total	C	N	O	S	0	0	0
			501	318	82	98	3			

- Molecule 2 is a protein called Protein traD.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
2	S	8	Total	C	N	O	0	0	0
			63	38	8	17			
2	T	7	Total	C	N	O	0	0	0
			55	34	7	14			
2	U	7	Total	C	N	O	0	0	0
			55	34	7	14			
2	V	7	Total	C	N	O	0	0	0
			55	34	7	14			
2	W	7	Total	C	N	O	0	0	0
			55	34	7	14			
2	X	7	Total	C	N	O	0	0	0
			55	34	7	14			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
2	Y	7	Total	C	N	O	0	0	0
			55	34	7	14			
2	Z	7	Total	C	N	O	0	0	0
			55	34	7	14			

- Molecule 3 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	3	Total	O	0	0
			3	3		
3	B	2	Total	O	0	0
			2	2		
3	C	2	Total	O	0	0
			2	2		
3	D	1	Total	O	0	0
			1	1		
3	F	1	Total	O	0	0
			1	1		
3	G	1	Total	O	0	0
			1	1		
3	H	2	Total	O	0	0
			2	2		

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	H 3	Depositor
Cell constants a, b, c, α , β , γ	142.25Å 142.25Å 70.95Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	(Not available) – 2.55	Depositor
% Data completeness (in resolution range)	100.0 ((Not available)-2.55)	Depositor
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	3.92 (at 2.54Å)	Xtriage
Refinement program	REFMAC 5.2.0019	Depositor
R, R_{free}	0.218 , 0.257	Depositor
Wilson B-factor (Å ²)	45.4	Xtriage
Anisotropy	0.322	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	0.010 for h,-h-k,-l	Xtriage
Total number of atoms	4468	wwPDB-VP
Average B, all atoms (Å ²)	41.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 7.16% 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](#)

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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 oligosaccharides 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 ⓘ

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.