

Integrative Structure Validation Report

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The following software was used in the production of this report:

IHMValidation Version 3.0


Python-IHM Version 2.5

MolProbity Version 4.5.2

PDB ID	9A87 pdb_00009a87
PDB-Dev ID	PDBDEV_00000372
Structure Title	The structure of C-terminal domain of the Arabidopsis BCCP1
Structure Authors	Shivaiah, K-K.; Subedi, G.P.; Barb, A.W.; Nikolau, B.J.
Deposited on	2023-11-11

This is a PDB-IHM Structure Validation Report.

We welcome your comments at helpdesk@pdb-ihm.org

A user guide is available at https://pdb-ihm.org/validation_help.html with specific help available everywhere you see the  symbol.

List of references used to build this report is available [here](#).

1. Overview

1.1. Summary

This entry consists of 1 model(s). A total of 1 dataset(s) were used to build this entry.

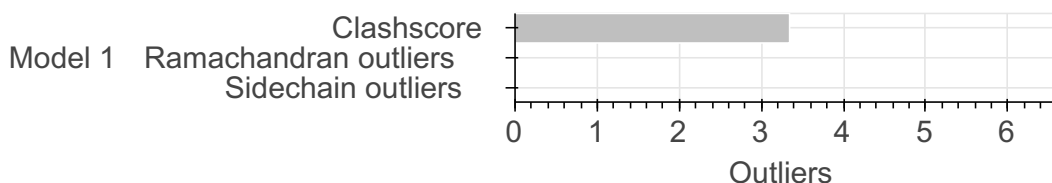
Name	Type	Count
NMR data	Experimental data	1

1.2. Overall quality

This validation report contains model quality assessments for all structures, data quality and fit to model assessments for SAS and

crosslinking-MS datasets. Data quality and fit to model assessments for other datasets and model uncertainty are under development. Number of plots is limited to 256.

Model Quality: MolProbity Analysis ?



2. Model Details ?

2.1. Ensemble information ?

This entry consists of 0 distinct ensemble(s).

2.2. Representation ?

This entry has 1 representation(s).

ID	Model(s)	Entity ID	Molecule name	Chain(s) [auth]	Total residues	Rigid segments	Flexible segments	Model coverage/ Starting model coverage (%)	Scale
1	1	1	Biotin carboxyl carrier protein of acetyl-CoA carboxylase 1, chloroplastic	A	79	-	1-79	100.00 / 0.00	Atomic

2.3. Datasets used for modeling ?

There is 1 unique dataset used to build the models in this entry.

ID	Dataset type	Database name	Data access code
1	NMR data	BMRB	52087

2.4. Methodology and software ?

This entry is a result of 1 distinct protocol(s).

Step number	Protocol ID	Method name	Method type	Method description	Number of computed models	Multi state modeling	Multi scale modeling
1	1	Not available	Not available	Evaluated NMR data with the SPARKY program hosted by NMRFAM to establish backbone and sidechain assignments	Not available	False	False
2	1	Not available	Not available	Using the assigned chemical shift values, the structure of the C-terminal domain of the Arabidopsis BCCP1 was determined using chemical shift-Rosetta (CS-Rosetta)	Not available	False	False

There are 2 software packages reported in this entry.

ID	Software name	Software version	Software classification	Software location
1	NMRFAM-sparky	Not available	Chemical shifts were manually assigned and validated using NMRFAM-sparky	https://nmrbox.nmrhub.org/software/nmrfam-sparky
2	CS-Rosetta	Not available	model building	https://www.rosettacommons.org/docs/latest/CS-Rosetta

3. Data quality ?

3.4. NMR ?

Validation for this section is under development.

4. Model quality ?

For models with atomic structures, MolProbity analysis is performed. For models with coarse-grained or multi-scale structures, excluded volume analysis is performed.

4.1b. MolProbity Analysis ?

Excluded volume satisfaction for the models in the entry are listed below. The Analysed column shows the number of particle-particle or particle-atom pairs for which excluded volume was analysed.

Standard geometry: bond outliers ?

There are no bond length outliers.

Standard geometry: angle outliers ?

There are no bond angle outliers.

Too-close contacts ?

The following all-atom clashscore is based on a MolProbity analysis. All-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The table below contains clashscores for all atomic models in this entry.

Model ID	Clash score	Number of clashes
1	3.34	4

There are 4 clashes. The table below contains the detailed list of all clashes based on a MolProbity analysis. Bad clashes are ≥ 0.4 Angstrom.

Atom 1	Atom 2	Clash(Å)	Model ID (Worst)	Models (Total)
A:3:LEU:HB3	A:4:PRO:HD3	0.51	1	1
A:26:ILE:C	A:26:ILE:HD12	0.50	1	1
A:3:LEU:N	A:4:PRO:HD2	0.48	1	1
A:3:LEU:N	A:4:PRO:CD	0.42	1	1

Torsion angles: Protein backbone ?

In the following table, Ramachandran outliers are listed. The Analysed column shows the number of residues for which the backbone conformation was analysed.

Model ID	Analysed	Favored	Allowed	Outliers
1	77	75	2	0

Torsion angles : Protein sidechains ?

In the following table, sidechain rotameric outliers are listed. The Analysed column shows the number of residues for which the sidechain conformation was analysed.

Model ID	Analysed	Favored	Allowed	Outliers
1	69	67	2	0

5. Fit to Data Used for Modeling Assessment ?

5.4. NMR ?

Validation for this section is under development.

6. Fit to Data Used for Validation Assessment ?

Validation for this section is under development.

Acknowledgments

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