



## wwPDB EM Validation Summary Report ⓘ

Mar 8, 2026 – 06:08 AM UTC

PDB ID : 9MOM / pdb\_00009mom  
EMDB ID : EMD-48470  
Title : Structure of native murine cardiac thin filament at pCa=5.8 in Ca<sup>2+</sup>-bound partially activated state (upper strand)  
Authors : Risi, C.M.; Galkin, V.E.  
Deposited on : 2024-12-26  
Resolution : 5.10 Å (reported)  
Based on initial models : 8UZY, 7UTI, ., 7KO5

This is a wwPDB EM Validation Summary Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

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>.

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

EMDB validation analysis : 0.0.1.dev132  
Mogul : **FAILED**  
MolProbity : **FAILED**  
Buster-report : **FAILED**  
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)  
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)  
MapQ : 1.8.1  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.49

PERCENTILES INFOmissingINFO

ENTRY-COMPOSITION INFOmissingINFO

SEQUENCE-PLOTS INFOmissingINFO

# 1 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	67709	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	34	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	9.081	Depositor
Minimum map value	-2.973	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.257	Depositor
Recommended contour level	0.515	Depositor
Map size ( $\text{\AA}$ )	439.344, 439.344, 439.344	wwPDB
Map dimensions	324, 324, 324	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.356, 1.356, 1.356	Depositor

## 2 Model quality [i](#)

### 2.1 Standard geometry [i](#)

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

### 2.2 Too-close contacts [i](#)

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

### 2.3 Torsion angles [i](#)

#### 2.3.1 Protein backbone [i](#)

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

#### 2.3.2 Protein sidechains [i](#)

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

#### 2.3.3 RNA [i](#)

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

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

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

### 2.5 Carbohydrates [i](#)

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

### 2.6 Ligand geometry [i](#)

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

### 2.7 Other polymers [i](#)

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

## 2.8 Polymer linkage issues

There are no chain breaks in this entry.

### 3 Map visualisation

This section contains visualisations of the EMDB entry EMD-48470. These allow visual inspection of the internal detail of the map and identification of artifacts.

Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

#### 3.1 Orthogonal projections

This section was not generated.

#### 3.2 Central slices

This section was not generated.

#### 3.3 Largest variance slices

This section was not generated.

#### 3.4 Orthogonal standard-deviation projections (False-color)

This section was not generated.

#### 3.5 Orthogonal surface views

This section was not generated.

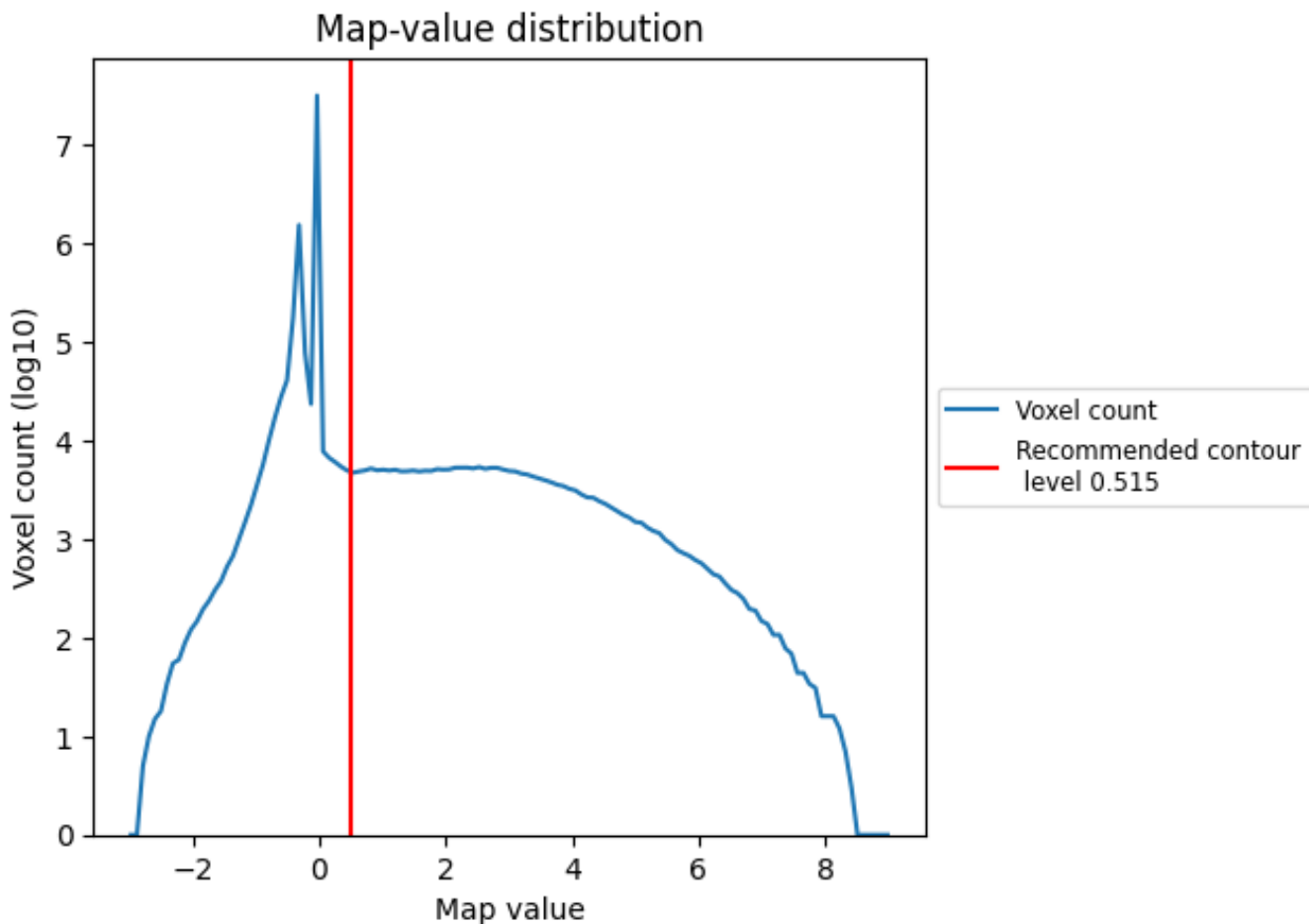
#### 3.6 Mask visualisation

This section was not generated. No masks/segmentation were deposited.

## 4 Map analysis [i](#)

This section contains the results of statistical analysis of the map.

### 4.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

### 4.2 Volume estimate versus contour level [i](#)

This section was not generated.

### 4.3 Rotationally averaged power spectrum [i](#)

This section was not generated. The rotationally averaged power spectrum could not be displayed.

## 5 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

## 6 Map-model fit

This section contains information regarding the fit between EMDB map EMD-48470 and PDB model 9MOM. Per-residue inclusion information can be found in section ?? on page ??.

### 6.1 Map-model overlay

This section was not generated.

### 6.2 Q-score mapped to coordinate model

This section was not generated.

### 6.3 Atom inclusion mapped to coordinate model

This section was not generated.

### 6.4 Atom inclusion versus contour level

This section was not generated.

### 6.5 Map-model fit summary

This section was not generated.