



## wwPDB EM Validation Summary Report ⓘ

May 4, 2024 – 06:39 pm BST

EMDB ID : EMD-0094  
Title : Structure of human HCN4 hyperpolarization-activated cyclic nucleotide-gated ion channel in complex with cAMP  
Authors : Shintre, C.A.; Pike, A.C.W.  
Deposited on : 2018-06-30  
Resolution : 3.40 Å(reported)

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/EMMapValidationReportHelp>

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.dev92  
Validation Pipeline (wwPDB-VP) : 2.36.2

# 1 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	55829	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Not provided	
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	48.0	Depositor
Minimum defocus (nm)	1.3	Depositor
Maximum defocus (nm)	2.5	Depositor
Magnification	37313.0	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor

## 2 Map visualisation

This section contains visualisations of the EMDB entry EMD-0094. 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.

### 2.1 Orthogonal projections

This section was not generated.

### 2.2 Central slices

This section was not generated.

### 2.3 Largest variance slices

This section was not generated.

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

This section was not generated.

### 2.5 Orthogonal surface views

This section was not generated.

### 2.6 Mask visualisation

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

### 3 Map analysis ⓘ

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

#### 3.1 Map-value distribution ⓘ

This section was not generated.

#### 3.2 Volume estimate versus contour level ⓘ

This section was not generated.

#### 3.3 Rotationally averaged power spectrum ⓘ

This section was not generated. The rotationally averaged power spectrum had issues being displayed.

## 4 Fourier-Shell correlation ⓘ

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