

**Summary of integrative structure determination of Modeling of the ciliary Intraflagellar transport-A complex (PDB ID: 9A2D, PDB-Dev ID: PDBDEV\_00000156)**

| <b>1. Model Composition</b>  |  |
|--|--|
| <a href="#">Entry composition</a>                                    | <ul style="list-style-type: none"> <li>- Intraflagellar transport protein 121: Chain B (1195 residues)</li> <li>- Intraflagellar transport protein 139: Chain D (1334 residues)</li> <li>- Intraflagellar transport protein 43: Chain A (146 residues)</li> <li>- Intraflagellar transport protein 144: Chain F (1387 residues)</li> <li>- Intraflagellar transport protein 122: Chain C (1251 residues)</li> <li>- Intraflagellar transport protein 140: Chain E (1407 residues)</li> </ul> |
| <a href="#">Datasets used for modeling</a>                           | <ul style="list-style-type: none"> <li>- Crosslinking-MS data, Linker name and number of cross-links: DSSO, 100 cross-links</li> <li>- De Novo model, File: 10.5281/zenodo.7222413</li> <li>- 3DEM volume, EMDB: EMD-26791</li> </ul>  |
| <b>2. Representation</b>   |  |
| <a href="#">Resolution</a>   | Coarse-grained: 1 residue(s) per bead  |
| <a href="#">Number of <i>rigid bodies</i>, <i>flexible units</i></a> | 23, 3  |
| <i>Rigid bodies</i>  | <ul style="list-style-type: none"> <li>- B: 1-341, 342-655, 656-799, 800-895, 896-978, 979-1004, 1005-1195</li> <li>- C: 1-319, 320-581, 582-811, 812-1251</li> <li>- D: 1-1334</li> <li>- F: 1-655, 656-985, 986-1114, 1115-1387</li> <li>- E: 1-376, 377-713, 714-979, 980-1080, 1081-1407</li> <li>- A: 70-80, 90-130</li> </ul>  |
| <i>Flexible units</i>  | <ul style="list-style-type: none"> <li>- B: -</li> <li>- C: -</li> <li>- D: -</li> <li>- F: -</li> <li>- E: -</li> <li>- A: 1-69, 81-89, 131-146</li> </ul>  |
| <a href="#">Structural coverage (<i>rigid bodies</i>)</a>            | 100%   |
| <b>3. Restraints</b>   |  |
| <a href="#">Physical principles</a>                                  | Information about physical principles was not provided   |
| <a href="#">Experimental data</a>                                    | - 1 unique CrossLinkRestraint: DSSO, 100 cross-links   |

|   |   |
|---|---|
| <b>4. Validation</b>  |   |
| <a href="#"><i>Number of ensembles</i></a>                          | 0   |
| <a href="#"><i>Number of models in ensembles</i></a>                | Not applicable  |
| <a href="#"><i>Number of deposited models</i></a>                   | 1   |
| <a href="#"><i>Model precision (uncertainty of models)</i></a>      | Model precision can not be calculated with one structure  |
| <a href="#"><i>Data quality</i></a>                                 | Data quality has not been assessed  |
| <a href="#"><i>Model quality: assessment of atomic segments</i></a> | Model-1: Clashscore = 5.21, Number of Ramachandran outliers = 0, Number of sidechain outliers = 0   |
| <a href="#"><i>Model quality: assessment of excluded volume</i></a> | Not applicable  |
| <a href="#"><i>Fit to data used for modeling</i></a>                | Fit of model to information used to compute it has not been determined  |
| <a href="#"><i>Fit to data used for validation</i></a>              | Fit of model to information not used to compute it has not been determined  |
| <b>5. Methodology and Software</b>                                  |   |
| 1. <a href="#"><i>Method</i></a>                                    | Sampling  |
| <a href="#"><i>Name</i></a>   | Replica exchange monte carlo  |
| <a href="#"><i>Number of computed models</i></a>                    | 200000  |
| <a href="#"><i>Software</i></a>                                     | <ul style="list-style-type: none"> <li>- <a href="#">AlphaFold2</a> (version Not available)</li> <li>- <a href="#">IMP PMI module</a> (version 2.11.1)</li> <li>- <a href="#">Integrative Modeling Platform (IMP)</a> (version 2.11.1)</li> </ul> |