

Summary of integrative structure determination of Modeling of the interaction between doublecortin and microtubule, NDCs fixed at diagonal (#2) orientation (PDB ID: 9A12, PDB-Dev ID: PDBDEV_0000074)

1. Model Composition	
Entry composition	<ul style="list-style-type: none"> - Alpha-Tubulin: Chain C (451 residues) - Alpha-Tubulin: Chain D (451 residues) - Alpha-Tubulin: Chain E (451 residues) - Beta-Tubulin: Chain O (445 residues) - Beta-Tubulin: Chain S (445 residues) - Alpha-Tubulin: Chain H (451 residues) - Doublecortin: Chain A (365 residues) - Beta-Tubulin: Chain R (445 residues) - Doublecortin: Chain B (365 residues) - Beta-Tubulin: Chain N (445 residues) - Alpha-Tubulin: Chain J (451 residues) - Beta-Tubulin: Chain Q (445 residues) - Alpha-Tubulin: Chain G (451 residues) - Alpha-Tubulin: Chain I (451 residues) - Beta-Tubulin: Chain L (445 residues) - Beta-Tubulin: Chain T (445 residues) - Alpha-Tubulin: Chain K (451 residues) - Beta-Tubulin: Chain P (445 residues) - Beta-Tubulin: Chain M (445 residues) - Alpha-Tubulin: Chain F (451 residues)
Datasets used for modeling	<ul style="list-style-type: none"> - Experimental model, PDB ID: 4ATU - Experimental model, PDB ID: 6FNZ - Experimental model, PDB ID: 6EVZ - Crosslinking-MS data, Linker name and number of cross-links: LCSDA, 445 cross-links
2. Representation	
Resolution	Coarse-grained: 1, 4, 8 residue(s) per bead
Number of <i>rigid bodies</i>, <i>flexible units</i>	40, 4
<i>Rigid bodies</i>	<ul style="list-style-type: none"> - A: 51-140, 177-251 - B: 51-140, 177-251 - C: 1-37, 47-435 - D: 1-37, 47-435 - E: 1-37, 47-435 - F: 1-37, 47-435 - G: 1-37, 47-435 - H: 1-37, 47-435 - I: 1-37, 47-435 - J: 1-37, 47-435 - K: 1-37, 47-435 - L: 1-37, 38-429 - M: 1-37, 38-429 - N: 1-37, 38-429 - O: 1-37, 38-429 - P: 1-37, 38-429 - Q: 1-37, 38-429 - R: 1-37, 38-429 - S: 1-37, 38-429 - T: 1-37, 38-429

<i>Flexible units</i>	<ul style="list-style-type: none"> - A: 141-176, 252-330 - B: 141-176, 252-330 - C: - - D: - - E: - - F: - - G: - - H: - - I: - - J: - - K: - - L: - - M: - - N: - - O: - - P: - - Q: - - R: - - S: - - T: -
<i>Structural coverage (rigid bodies)</i>	97%
3. Restraints	
<i>Physical principles</i>	Information about physical principles was not provided
<i>Experimental data</i>	- 1 unique CrossLinkRestraint: LCSDA, 445 cross-links
4. Validation	
<i>Number of ensembles</i>	1
<i>Number of models in ensembles</i>	30000
<i>Number of deposited models</i>	1
<i>Model precision (uncertainty of models)</i>	None, Å
<i>Data quality</i>	Data quality has not been assessed
<i>Model quality: assessment of excluded volume</i>	Satisfaction: 99.94-99.94%
<i>Fit to data used for modeling</i>	Fit of model to information used to compute it has not been determined
<i>Fit to data used for validation</i>	Fit of model to information not used to compute it has not been determined
5. Methodology and Software	
<i>1. Method</i>	Sampling
<i>Name</i>	Replica exchange monte carlo

<i>Number of computed models</i>	240000
<i>Software</i>	<ul style="list-style-type: none">- IMP PMI module (version 2.14.0)- Integrative Modeling Platform (IMP) (version 2.14.0)