**Summary of integrative structure determination of Integrative structure of the human WDR76-SPIN1-Nucleosome complex (PDB ID: 9A8I, PDB-Dev ID: PDBDEV_00000382)**

| 1. Model Composition | |
|---|---|
| *Entry composition* | - Histone H2A type 1: Chain D (130 residues)<br>- Histone H3.1: Chain H (136 residues)<br>- WD repeat-containing protein 76: Chain A (626 residues)<br>- Histone H2B type 1-C/E/F/G/I: Chain F (126 residues)<br>- Histone H4 : Chain I (103 residues)<br>- Histone H2B type 1-C/E/F/G/I: Chain E (126 residues)<br>- Histone H2A type 1: Chain C (130 residues)<br>- Histone H4 : Chain J (103 residues)<br>- Histone H3.1: Chain G (136 residues)<br>- Spindlin-1: Chain B (262 residues) |
| *Datasets used for modeling* | - Crosslinking-MS data, Linker name and number of cross-links: DSSO, 76 cross-links<br>- Crosslinking-MS data, Linker name and number of cross-links: DSSO, 3 cross-links<br>- De Novo model, AlphaFoldDB: AF-Q9H967-F1<br>- Experimental model, PDB ID: 4H75<br>- Experimental model, PDB ID: 5GT0 |
| **2. Representation** | |
| *Resolution* | Coarse-grained: 1, 2, 3, 4, 13 residue(s) per bead |
| *Number of rigid bodies, flexible units* | 11, 21 |
| Rigid bodies | - F: 28-125<br>- E: 32-125<br>- H: 37-135<br>- D: 14-119<br>- C: 13-118<br>- G: 37-135<br>- J: 24-102<br>- I: 17-102<br>- A: 245-276, 288-626<br>- B: 45-259 |
| Flexible units | - F: 1-27, 126-126<br>- E: 1-31, 126-126<br>- H: 1-36, 136-136<br>- D: 1-13, 120-130<br>- C: 1-12, 119-130<br>- G: 1-36, 136-136<br>- J: 1-23, 103-103<br>- I: 1-16, 103-103<br>- A: 1-244, 277-287<br>- B: 1-44, 195-210, 260-262 |

| | |
|---|---|
| *Structural coverage (rigid bodies)* | 71% |
| **3. Restraints** | |
| *Physical principles* | Information about physical principles was not provided |
| *Experimental data* | - 1 unique CrossLinkRestraint: DSSO, 76 cross-links<br>- 1 unique CrossLinkRestraint: DSSO, 3 cross-links |
| **4. Validation** | |
| *Number of ensembles* | 1 |
| *Number of models in ensembles* | 27314 |
| *Number of deposited models* | 1 |
| *Model precision (uncertainty of models)* | 24.0, Å |
| *Data quality* | Data quality has not been assessed |
| *Model quality: assessment of excluded volume* | Satisfaction: 99.65-99.65% |
| *Fit to data used for modeling* | Fit of model to information used to compute it has not been determined |
| *Fit to data used for validation* | Fit of model to information not used to compute it has not been determined |
| **5. Methodology and Software** | |
| 1. *Method* | Sampling |
| *Name* | Replica exchange monte carlo |
| *Number of computed models* | 750000 |
| *Software* | - IMP PMI module (version 2.16.0)<br>- Integrative Modeling Platform (IMP) (version 2.16.0) |