

Summary of integrative structure determination of Modeling of Yeast NPC basket (PDB ID: 9A8N | pdb_00009a8n, PDB-Dev ID: PDBDEV_00000387)

1. Model Composition	
1.1. Entry composition	- Unknown MLP Protein: chain(s) A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P (1875 residues) - Nucleoporin NUP60: chain(s) AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD (539 residues) - Nucleoporin NUP120: chain(s) BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT (1037 residues) - Nucleoporin NUP85: chain(s) BU, BW, BY, CA, CC, CE, CG, CI (744 residues) - Nucleoporin NUP85: chain(s) BV, BX, BZ, CB, CD, CF, CH, CJ (744 residues) - Nucleoporin NUP145C: chain(s) CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ (712 residues) - Protein transport protein SEC13: chain(s) DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP (297 residues) - Nucleoporin SEH1: chain(s) DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF (349 residues) - Nucleoporin NUP84: chain(s) EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV (726 residues) - Nucleoporin NUP133: chain(s) EW, EY, FA, FC, FE, FG, FI, FK (1157 residues) - Nucleoporin NUP133: chain(s) EX, EZ, FB, FD, FF, FH, FJ, FL (1157 residues) - Nucleoporin NUP1: chain(s) Q, R, S, T, U, V, W, X (1076 residues) - Nucleoporin NUP2: chain(s) Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN (720 residues)
1.2. Datasets used for modeling	- De Novo model, Zenodo: 10.5281/zenodo.13131753 - De Novo model, Zenodo: 10.5281/zenodo.13131753 - De Novo model, Zenodo: 10.5281/zenodo.13131753 - De Novo model, Zenodo: 10.5281/zenodo.13131753 - Experimental model, PDB: pdb_00007n84 - Experimental model, Zenodo: 10.5281/zenodo.13131753 - Crosslinking-MS data, Zenodo: 10.5281/zenodo.13131753 - Crosslinking-MS data, Zenodo: 10.5281/zenodo.13131753 - 3DEM volume, EMD: EMD-44377 - 3DEM volume, Zenodo: 10.5281/zenodo.13131753 - 3DEM volume, Zenodo: 10.5281/zenodo.13131753
2. Representation	
2.1. Number of representations	1
2.2. Scale	Multiscale: Coarse-grained: 1 - 50 residue(s) per bead

2.3. Number of rigid and flexible segments	912, 1000
3. Restraints	
3.1. Physical principles	Information about physical principles was not provided
3.2. Experimental data	- 1 unique GeometricRestraint: DSS, 164 crosslinks - 1 unique EM3DRestraint: DSS, 539 crosslinks - 1 unique CrossLinkRestraint: Bayesian EM restraint on Gaussian mixture models
4. Validation	
4.2. Number of ensembles	1
4.3. Number of models in ensembles	1
4.4. Number of deposited models	1
4.5. Model precision	57.20, Å
4.6. Data quality	EMD-44377: resolution is 35.00 Å
4.7. Model quality: assessment of excluded volume	Satisfaction: 99.99%
4.8. Fit to data used for modeling	Satisfaction of crosslinks: 71.78%
4.9. 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. 5.1. Method name	Sampling
5.2. Method type	Replica exchange monte carlo
5.4. Number of computed models	1000
2. 5.1. Method name	Sampling
5.2. Method type	Replica exchange monte carlo
5.4. Number of computed models	15467933
5.5. Software	- IMP PMI module (version 2.19.0) - COCONUT (version 1.0.0) - Integrative Modeling Platform (IMP) (version 2.19.0)