

**Summary of integrative structure determination of Pennycress biotin carboxylase tetramer
integrative model (PDB ID: 9AAL | pdb_00009aal)**

1. Model Composition	
1.1. Entry composition	Biotin carboxylase: chain(s) A, B, C, D (447 residues)
1.2. Datasets used for modeling	- Crosslinking-MS data, MASSIVE: MSV000100391 - Experimental model, PDB: pdb_00009zvm
2. Representation	
2.1. Number of representations	1
2.2. Scale	Atomic
2.3. Number of rigid and flexible segments	0, 4
3. Restraints	
3.1. Physical principles	Information about physical principles was not provided
3.2. Experimental data	- 1 unique CrossLinkRestraint: DSBU, 7 crosslinks
4. Validation	
4.2. Number of ensembles	1
4.3. Number of models in ensembles	7
4.4. Number of deposited models	7
4.5. Model precision	Not available
4.6. Data quality	Data quality has not been assessed
4.7. Model quality: assessment of atomic segments	- Clashscore: 5.77-6.34 - Ramachandran outliers: 17-31 - Sidechain outliers: 103-115
4.8. Fit to data used for modeling	Satisfaction of crosslinks: 14.29-57.14%
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	Rigid body docking
5.2. Method type	Rigid body docking
5.3. Method description	Initial rigid body docking with crosslinking restraints

5.4. Number of computed models	600
2. 5.1. Method name	Semi-flexible refinement
5.2. Method type	Simulated annealing
5.3. Method description	Refinement with bulk water
5.4. Number of computed models	120
5.5. Software	HADDOCK (version 2.4)