

Summary of integrative structure determination of Predicted model of tissue transglutaminase 2 (TG2) in complex with plasma fibronectin type I modules 2 and 3 (FNI2-3) (PDB ID: 9A3X | pdb_00009a3x, PDB-Dev ID: PDBDEV_00000218)

1. Model Composition	
1.1. Entry composition	- Protein-glutamine gamma-glutamyltransferase 2: chain(s) A (687 residues) - Fibronectin: chain(s) B (90 residues)
1.2. Datasets used for modeling	- Crosslinking-MS data, PRIDE: PXD043976 - Experimental model, PDB: pdb_00004pyg - Experimental model, PDB: pdb_00002cg7
2. Representation	
2.1. Number of representations	1
2.2. Scale	Atomic
2.3. Number of rigid and flexible segments	0, 2
3. Restraints	
3.1. Physical principles	Information about physical principles was not provided
3.2. Experimental data	- 1 unique CrossLinkRestraint: DMTMM, 1 crosslinks - 1 unique CrossLinkRestraint: DSS, 0 crosslinks - 1 unique CrossLinkRestraint: PDH, 0 crosslinks
4. Validation	
4.2. Number of ensembles	0
4.3. Number of models in ensembles	Not applicable
4.4. Number of deposited models	1
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: 11.96 - Ramachandran outliers: 10 - Sidechain outliers: 86
4.8. Fit to data used for modeling	Satisfaction of crosslinks: 100.00%
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	Refinement

<u>5.2. Method type</u>	Iterative Threading ASSEmblY Refinement
<u>5.3. Method description</u>	structural refinement of starting models guided by experimental crosslinks
2. <u>5.1. Method name</u>	satisfied/violated crosslinks identification
<u>5.2. Method type</u>	Validate measured chemical cross-links on a protein 3D structure
<u>5.3. Method description</u>	calculation of Euclidean distances between crosslinked residues
3. <u>5.1. Method name</u>	calculation of accessible area
<u>5.2. Method type</u>	calculates the atomic accessible area when a probe is rolled around the Van der Waal's surface of a macromolecule
<u>5.3. Method description</u>	calculation of accessible area
4. <u>5.1. Method name</u>	accessible interaction space
<u>5.3. Method description</u>	determine the number of complexes consistent with the restraints
5. <u>5.1. Method name</u>	docking
<u>5.2. Method type</u>	data-driven biomolecular docking
<u>5.3. Method description</u>	generates predicted model of a protein complex
<u>5.5. Software</u>	- <u>I-TASSER</u> (version Not available) - <u>Xwalk</u> (version Not available) - <u>NACCESS</u> (version Not available) - <u>DisVis</u> (version Not available) - <u>HADDOCK</u> (version Not available)