

Summary of integrative structure determination of Hypoxia Inducible Factor 1 complex bound to a TACC3 fragment (758-838) (PDB ID: 9A9Z | pdb_00009a9z)

1. Model Composition	
1.1. Entry composition	- Aryl hydrocarbon receptor nuclear translocator: chain(s) A (384 residues) - Hypoxia inducible factor 1-alpha: chain(s) B (345 residues) - 20 bp hypoxia response element (forward): chain(s) C (21 residues) - 20 bp hypoxia response element (reverse): chain(s) D (21 residues) - Transforming acidic coiled-coil containing protein 3: chain(s) E, F (46 residues)
1.2. Datasets used for modeling	- 3DEM volume, Zenodo: 10.5281/zenodo.15578993 - Experimental model, PDB: pdb_00004zpr - De Novo model, AlphaFoldDB: AF-Q9Y6A5-F1
2. Representation	
2.1. Number of representations	1
2.2. Scale	Atomic
2.3. Number of rigid and flexible segments	0, 6
3. Restraints	
3.1. Physical principles	Information about physical principles was not provided
3.2. Experimental data	- 1 unique EM3DRestraint: Rigid docking
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: 16.90 - Ramachandran outliers: 2 - Sidechain outliers: 11
4.8. Fit to data used for modeling	Fit of model to information used to compute it has not been determined

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	CTF correction/Particle picking
5.3. Method description	WARP was used for CTF correction of micrographs and neural-network based particle picking
2. 5.1. Method name	Particle classification/EM map reconstruction/Refinement
5.3. Method description	CryoSPARC was used to sort picked particles through 2D classification and reconstruct 3D EM maps
3. 5.1. Method name	Model building
5.3. Method description	ChimeraX was used to rigidly fit a HIF-1 structure (4ZPR) into the resulting EM map.
4. 5.1. Method name	Rigid Docking
5.3. Method description	PHENIX dock-in-map was used to rigidly dock a TACC3 fragment against HIF-1 in unoccupied EM density
5.5. Software	- WARP (version 1.0.9) - CryoSPARC (version 4.0.2) - ChimeraX (version 1.9) - PHENIX (version 1.20.1_4487)