

Summary of integrative structure determination of Rosetta model of human LRH-1 nuclear receptor generated with XL-MS, HDX-MS, and SAXS data (PDB ID: 8ZZZ | pdb_00008zzz, PDB-Dev ID: PDBDEV_00000035)

1. Model Composition	
1.1. Entry composition	- LRH-1 DNA-binding domain: chain(s) A (102 residues) - LRH-1 Ligand-binding domain: chain(s) B (240 residues) - LRH-1 full length polypeptide: chain(s) C (538 residues) - PGC1-alpha coactivator peptide: chain(s) D (10 residues) - DNA strand 1: chain(s) E (12 residues) - DNA strand 2: chain(s) F (12 residues) - Phospholipid ligand: chain(s) X - Zinc ion: chain(s) Y, Z
1.2. Datasets used for modeling	- Experimental model, PDB: pdb_00002a66 - Experimental model, PDB: pdb_00001yok - Comparative model, Zenodo: 10.5281/zenodo.3405545 - Comparative model, Zenodo: 10.5281/zenodo.3405545 - Crosslinking-MS data, Zenodo: 10.5281/zenodo.3405545 - H/D exchange data, Zenodo: 10.5281/zenodo.3405545 - Integrative model, Zenodo: 10.5281/zenodo.3405545 - Crosslinking-MS data, Zenodo: 10.5281/zenodo.3405545 - SAS data, SASBDB: SASDG85
2. Representation	
2.1. Number of representations	2
2.2. Scale	- Atomic - Atomic
2.3. Number of rigid and flexible segments	- 2, 3 - 3, 1
3. Restraints	
3.1. Physical principles	Information about physical principles was not provided
3.2. Experimental data	- 1 unique CrossLinkRestraint: BS3, 3 crosslinks - 1 unique CrossLinkRestraint: BS3, 10 crosslinks - 1 unique SASRestraint: Assembly name: Assembly of full-length LRH-1 with DNA, coactivator and P6L Ligand Fitting method: CRY SOL Multi-state: True
4. Validation	
4.2. Number of ensembles	1
4.3. Number of models in ensembles	10

<i>4.4. Number of deposited models</i>	11
<i>4.5. Model precision</i>	Not available
<i>4.6. Data quality</i>	SASDG85: Rg from Gunier is 3.82 nm and Rg from p(r) is 3.91 nm
<i>4.7. Model quality: assessment of atomic segments</i>	- Clashscore: 0.00-0.00 - Ramachandran outliers: 0-12 - Sidechain outliers: 0-2
<i>4.8. Fit to data used for modeling</i>	Satisfaction of crosslinks: 70.00-100.00%
<i>4.9. Fit to data used for validation</i>	Fit of model to information not used to compute it has not been determined
5. Methodology and Software	
1. <i>5.1. Method name</i>	Loop modeling
<i>5.2. Method type</i>	RosettaRemodel
<i>5.4. Number of computed models</i>	100
2. <i>5.1. Method name</i>	Docking
<i>5.2. Method type</i>	RosettaDock
<i>5.4. Number of computed models</i>	40000
3. <i>5.1. Method name</i>	Linker modeling
<i>5.2. Method type</i>	Ranch and RosettaMinimize
<i>5.4. Number of computed models</i>	45000
<i>5.5. Software</i>	- Rosetta (version 3.10) - ATSAS (version 2.8.4) - REMO (version 1)