

## Summary of integrative structure determination of Complex structure of holo-GmHO-1 and Ferredoxin III from maize root (PDB ID: 9A8X | pdb\_00009a8x)

| <b>1. Model Composition</b>                                       |                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">1.1. Entry composition</a>                            | <ul style="list-style-type: none"> <li>- Heme oxygenase (biliverdin-producing): chain(s) A (211 residues)</li> <li>- Ferredoxin-3, chloroplastic: chain(s) B (97 residues)</li> <li>- FE2/S2 (INORGANIC) CLUSTER: chain(s) C</li> <li>- PROTOPORPHYRIN IX CONTAINING FE: chain(s) D</li> </ul> |
| <a href="#">1.2. Datasets used for modeling</a>                   | <ul style="list-style-type: none"> <li>- NMR data, BMRB: <a href="#">26301</a></li> <li>- Experimental model, PDB: <a href="#">pdb_00007cka</a></li> <li>- Experimental model, PDB: <a href="#">pdb_00005h57</a></li> </ul>                                                                    |
| <b>2. Representation</b>                                          |                                                                                                                                                                                                                                                                                                |
| <a href="#">2.1. Number of representations</a>                    | 1                                                                                                                                                                                                                                                                                              |
| <a href="#">2.2. Scale</a>                                        | Atomic                                                                                                                                                                                                                                                                                         |
| <a href="#">2.3. Number of rigid and flexible segments</a>        | 0, 2                                                                                                                                                                                                                                                                                           |
| <b>3. Restraints</b>                                              |                                                                                                                                                                                                                                                                                                |
| <a href="#">3.1. Physical principles</a>                          | Information about physical principles was not provided                                                                                                                                                                                                                                         |
| <a href="#">3.2. Experimental data</a>                            |                                                                                                                                                                                                                                                                                                |
| <b>4. Validation</b>                                              |                                                                                                                                                                                                                                                                                                |
| <a href="#">4.2. Number of ensembles</a>                          | 0                                                                                                                                                                                                                                                                                              |
| <a href="#">4.3. Number of models in ensembles</a>                | Not applicable                                                                                                                                                                                                                                                                                 |
| <a href="#">4.4. Number of deposited models</a>                   | 3                                                                                                                                                                                                                                                                                              |
| <a href="#">4.5. Model precision</a>                              | Not available                                                                                                                                                                                                                                                                                  |
| <a href="#">4.6. Data quality</a>                                 | Data quality has not been assessed                                                                                                                                                                                                                                                             |
| <a href="#">4.7. Model quality: assessment of atomic segments</a> | <ul style="list-style-type: none"> <li>- Clashscore: 11.00-15.68</li> <li>- Ramachandran outliers: 0-2</li> <li>- Sidechain outliers: 9-14</li> </ul>                                                                                                                                          |
| <a href="#">4.8. Fit to data used for modeling</a>                | Fit of model to information used to compute it has not been determined                                                                                                                                                                                                                         |
| <a href="#">4.9. Fit to data used for validation</a>              | Fit of model to information not used to compute it has not been determined                                                                                                                                                                                                                     |
| <b>5. Methodology and Software</b>                                |                                                                                                                                                                                                                                                                                                |

|                                                |                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>1. <a href="#">5.1. Method name</a></i>     | docking                                                                                                                                                                                                                                                                                                                                                                    |
| <i><a href="#">5.3. Method description</a></i> | A docking simulation was performed with holo-GmHO-1 (Protein Data Bank [PDB] ID:7CKA) and maize Fd (Protein Data Bank [PDB] ID: 5h57) using the HADDOCK server based on NMR chemical shift perturbation experiments of apo-GmHO-1. Ten HADDOCK models were successfully obtained, from which the top cluster of models with a HADDOCK score of -57.0 +/- 2.2 were adopted. |
| <i><a href="#">5.5. Software</a></i>           | <a href="#">HADDOCK</a> (version 2.4)                                                                                                                                                                                                                                                                                                                                      |