

**Summary of integrative structure determination of Model of E. coli CysK by in-cell photo-crosslinking MS and deep learning (PDB ID: 9A2T | pdb\_00009a2t, PDB-Dev ID: PDBDEV\_00000178 )**

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|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>1. Model Composition</b>                                       |                                                                                                                                 |
| <a href="#">1.1. Entry composition</a>                            | P0ABK5: chain(s) A (323 residues)                                                                                               |
| <a href="#">1.2. Datasets used for modeling</a>                   | - Crosslinking-MS data, jPOSTrepo: JPST001851                                                                                   |
| <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, 1                                                                                                                            |
| <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>                            | - 1 unique CrossLinkRestrict: L-Photo-Leucine, 4 crosslinks                                                                     |
| <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>                   | 10                                                                                                                              |
| <a href="#">4.5. Model precision</a>                              | Not available                                                                                                                   |
| <a href="#">4.6. Data quality</a>                                 | - PXD036833: 100.00% of crosslinks found in the data.<br>- PXD036833: 0.65% of crosslinks from the data were used for modeling. |
| <a href="#">4.7. Model quality: assessment of atomic segments</a> | - Clashscore: 0.81-4.06<br>- Ramachandran outliers: 0-2<br>- Sidechain outliers: 0-2                                            |
| <a href="#">4.8. Fit to data used for modeling</a>                | Satisfaction of crosslinks: 50.00-50.00%                                                                                        |
| <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>                                |                                                                                                                                 |
| <a href="#">1. 5.1. Method name</a>                               | AlphaLink                                                                                                                       |
| <a href="#">5.2. Method type</a>                                  | AlphaLink with 10 msa subsamples                                                                                                |

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|-------------------------------------------------------|-----------------------------------------|
| <a href="#"><i>5.4. Number of computed models</i></a> | 10                                      |
| <a href="#"><i>5.5. Software</i></a>                  | <a href="#">AlphaLink</a> (version 1.0) |