**SOURCE DATA FILE**

**Source data file for protein structures in Figure 2**

**Figure 2** A Allosteric activation of kinase (ERK2 kinase, PDB ID: 4GT3) by uniRapR (PDB ID: 7F2J) domain that binds to small molecule (rapamycin) causing activation of the protein. B Allosteric inhibition of kinase (ERK2 kinase, PDB ID: 4GT3) by insertion of an optogenetic control protein, LOV2 (PDB ID: 2V0W), causing conformational change upon irradiation by blue light. C Activation of kinase using monobodies (PDB ID: 3RZW).

|  |  |  |
| --- | --- | --- |
| **Sr. No** | **Protein Name** | **PDB accession code** |
| 1. | ERK2 kinase | 4GT3 |
| 2. | uniRapR | 7F2J |
| 3. | LOV2 | 2V0W |
| 4. | Monobodies | 3RZW |