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Crystallographic exploration of flexibility in an allosteric enzyme

Phosphoglycerate dehydrogenase, a tetrameric NADH-cofactor enzyme in the serine synthesis pathway, has been known to crystallize in multiple forms (space groups, ligand states, etc.). We grew crystals of the enzyme from E. coli in various forms, including some previously unknown or unsolved, collected data and solved structures. We report on conditions contributing to the variety of crystal forms and attempt to identify relevant differences and range of motion of the resulting structures.

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