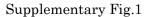
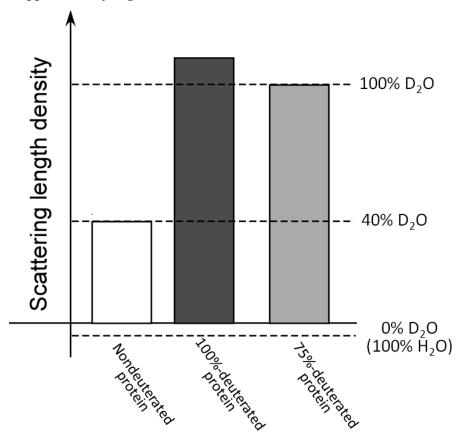
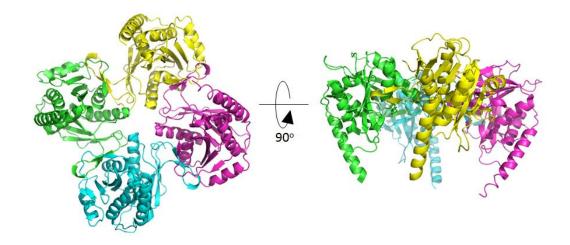
## Supplementary information





**Supplementary Figure 1:** Schematic of scattering length densities of a protein with different degrees of deuteration. The scattering length densities in 0%, 40%, and 100%  $D_2O$  solutions are -0.056, 0.221, and 0.636 fm/Å<sup>-3</sup>, respectively.

## Supplementary Fig.2



**Supplementary Figure 2:** Crystal structure of the PbaB tetramer (PDB accession code: 3VR0) (Kumoi *et al.*, 2013).