**NMR Elucidation of Monomer-dimer transition and Conformational heterogeneity inHistone-like DNA binding protein of *Helicobacter pylori* (Hup)**

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**Highlights:**

* The study revealed dynamic equilibrium between monomeric and dimeric conformations of *H. pylori* Hup at near physiological temperature and pH.
* The dynamic equilibrium shifts more towards dimeric state at low pH and low temperature.
* Compared to monomer, the dimeric state confers conformationally stable **-arms and binding to DNA.

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