



A Staggered Decameric Assembly of Human C-Reactive Protein Stabilized by Zinc Ions Revealed by X-ray Crystallography

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Auteur	Guillon, Christophe [1], Bigouagou, Ulrick [2], Folio, Christelle [3], Jeannin, Pascale [4], Delneste, Yves [5], Gouet, Patrice [6]
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Résumé en anglais	<p>Human C-reactive protein (CRP) is an acute phase protein, which harbours both host defence and scavenging properties. In this study, we obtained two new crystal forms of CRP, where CRP forms a symmetric, staggered dimer of pentamers. In one of these structures, obtained in the presence of HIV-1 Tat protein, this dimer of pentamers is stabilized by two zinc ions trapped within a cleft of the effector face of CRP. These two decameric interfaces involve complementary surfaces of CRP pentamers and bury a large area of $\sim 2000 \text{ \AA}^2$ per pentamer, suggesting a biological role of this interface. These two novel decameric interfaces and the involvement of zinc might have important consequences in the understanding of CRP biological functions.</p>
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