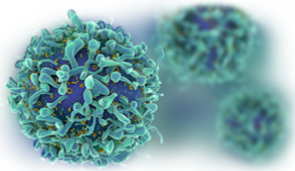

COTL1 Protein Crystal

Catalog: CBCRY15

PRODUCT INFORMATION

Name	COTL1 Protein Crystal
Cat No.	CBCRY15
Fragment	Full length
Protein Description	Coactosin-like protein
Background	Human coactosin-like protein is an actin filament binding protein but does not bind to globular actin. It associates with 5-Lipoxygenase both in vivo and in vitro, playing important roles in modulating the activities of actin and 5-Lipoxygenase. Coactosin counteracts the capping activity of capping protein which inhibits the actin polymerization. The structure showed a high level of similarity to ADF-H domain, although their amino acid sequences share low degree of homology. A few conserved hydrophobic residues that may contribute to the folding were identified. This structure suggests coactosin-like protein bind to F-actin in a different way from ADF/Cofilin family. Combined with the information from previous mutagenesis studies, the binding sites for F-actin and 5-Lipoxygenase were analyzed, respectively. These two sites are quite close, which might prevent F-actin and 5-Lipoxygenase from binding to coactosin simultaneously.
Protein Classification	protein binding
Structure Weight	31763.60 Da
Method	X-Ray Diffraction
Resolution	2.8 Å
Reference	Liu, L., Wei, Z., Wang, Y., Wan, M., Cheng, Z., Gong, W. (2004) Crystal Structure of Human Coactosin-like Protein J.Mol.Biol. 344: 317-323

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