



# COTL1 Protein Crystal

Catalog: CBCRY15

## PRODUCT INFORMATION

<b>Name</b>	COTL1 Protein Crystal
-------------	-----------------------

<b>Cat No.</b>	CBCRY15
----------------	---------

<b>Fragment</b>	Full length
-----------------	-------------

<b>Protein Description</b>	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.

<b>Protein Classification</b>	protein binding
-------------------------------	-----------------

<b>Structure Weight</b>	31763.60 Da
-------------------------	-------------

<b>Method</b>	X-Ray Diffraction
---------------	-------------------

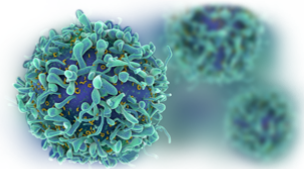
<b>Resolution</b>	2.8 Å
-------------------	-------

<b>Reference</b>	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
------------------	--

## USAGE GUIDELINES

### General

Avoid excessive mixing or shocking to prevent aggregation. Long term storage above -80°C may result in aggregate formation.



<b>Storage</b>	Short term: +2°C to +8°C
	Long term: -80°C
<b>Stability</b>	n.a.
<b>Freezing</b>	Can be frozen, but avoid multiple freeze/thaw cycles.