



LD Biopharma, Inc.
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<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CBY1 Protein
Catalog Number: hTF-1533
Manufacturer: LD Biopharma, Inc.

Introduction

Beta-catenin is a transcriptional activator and oncoprotein involved in the development of several cancers. The protein encoded by human protein Chibby homolog-1 (CBY1) gene interacts directly with the C-terminal region of beta-catenin, inhibiting oncogenic beta-catenin-mediated transcriptional activation, such as Wnt pathway by competing with transcription factors for binding to beta-catenin. Recent data indicated that CBY1 also plays a role in regulating the intracellular trafficking of polycystin-2/PKD2 and possibly of other intracellular proteins. Promotes adipocyte and cardiomyocyte differentiation. Two transcript variants encoding different isoforms have been found for this gene.

Full-length human CBY1 cDNA (125aa) was constructed with codon optimization technology and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. It was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: CBY1 (ARB1; C22orf2; CBY; PGEA1)
Accession Number: NP_056188.1
Species: Human
Size: 50 µg / Vial
Composition: 0.50 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and glycerol.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 7 days.

Key References



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Mancini M, et al., *Chibby drives beta catenin cytoplasmic accumulation leading to activation of the unfolded protein response in BCR-ABL1+ cells*. Cell. Signal. 25 (9), 1820-1827 (2013)

Steere N, et al., *A Wnt/beta-catenin pathway antagonist Chibby binds Cenexin at the distal end of mother centrioles and functions in primary cilia formation* PLoS ONE 7 (7), E41077 (2012)

Mokhtarzada S, et al., *Structural characterization of partially disordered human Chibby: insights into its function in the Wnt-signaling pathway*. Biochemistry 50 (5), 715-726 (2011)

Applications

1. May be used for in vitro CBY1 mediated gene transcription regulation for *cardiomyocyte adipocyte's differentiation* study with "ProFectin" reagent based intracellular delivery of this protein.
2. May be used as specific protein substrate for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
3. May be used for CBY1 protein-protein interaction mapping.
4. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGPFFGNTFSPKKTPPRKSASLSNLHSLDRSTREVELGLE
YGSPTMNLAGQSLKFENGQWIAETGVSGGVDRREVQRLRRRNQQLEEEENLLRLKVDILLDMLS
ESTAESHLMEKELDELRLSRKRK