



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human RAB34 Protein
Catalog Number: hRP-1666
Manufacturer: LD Biopharma, Inc.

Introduction

Endocytosis is involved in a wide variety of cellular processes, including uptake and internalization of solutes and components of the extracellular matrix (ECM), regulation of signaling induced by extracellular ligands, trafficking of cell surface receptors, such as integrins, and rearrangement of the actin cytoskeleton. Endocytosis and intracellular trafficking are coordinated by a family of small GTPases termed the Rabs. Rab proteins are classified according to their function and localization in different intracellular compartments and membrane domains. Rab34, a member of the Rab small GTPase which was characterized as a Golgi-associated Rab protein and regulates lysosomal positioning through interaction with RILP. Recent data indicated that Rab34 may play a role in diabetic nephropathy (DN) by regulating high glucose-induced protein secretion pathway.

Full-length human Rab34 cDNA (257 aa, Isoform-I, derived from BC066904) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein was expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: RAB34 (RAB39; RAH)
Accession Number: NP_114140
Species: Human
Size: 50 µg / Vial
Composition: 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Zougman A, et al., *Identification and characterization of a novel ubiquitous nucleolar protein 'NARR' encoded by a gene overlapping the rab34 oncogene.* Nucleic Acids Res. 39 (16),



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7103-7113 (2011)

Chen L, et al., *Rab36 regulates the spatial distribution of late endosomes and lysosomes through a similar mechanism to Rab34*. Mol. Membr. Biol. 27 (1), 23-30 (2010)

Goldenberg NM, et al., *Golgi-bound Rab34 is a novel member of the secretory pathway*. Mol. Biol. Cell 18 (12), 4762-4771 (2007)

Wang T, et al., *A unique region of RILP distinguishes it from its related proteins in its regulation of lysosomal morphology and interaction with Rab7 and Rab34*. Mol. Biol. Cell 15 (2), 815-826 (2004)

Applications

1. May be used for in vitro RAB34 protein mediated high glucose-induced protein secretion pathway regulation in kidney cells study by intracellular delivery of this protein with “ProFectin” reagent.
2. May be used for mapping RAB34 protein-protein interaction assay.
3. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGFESRKKTPKSKGASTPAASTLPTANGARPARSGTALS
GPDAPPNGPLQPGRPSLGGGVDFYDVAFKVMLVGD SGV GKTCLLVRFKDGAFLAGTFISTVGID
FRNKVLDVDGVKVKLQMWDTAGQERFRSVTHAYYRDAHALLLLYDVTNKASFDNIQAWLTEIHE
YAQHDVALMLLGNKVDS AHERVVKREDGEKLAKEYGLPFMETS AKTGLNVDLAF'TAI AKELKRR
SMKAPSEPRFRLHDYVKREGRGASCCRP