



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human RAB4A Protein
Catalog Number: hRP-960
Manufacturer: LD Biopharma, Inc.

Introduction

Human ras-related protein Rab-4A (RAB4A) gene is a member of the largest group in the Ras superfamily of small GTPases, which regulate membrane trafficking. The encoded protein is associated with early endosomes and is involved in their sorting and recycling. The protein also plays a role in regulating the recycling of receptors from endosomes to the plasma membrane. Alternatively spliced transcript variants have been observed for this gene.

Full-length mature human RAB4A (218 aa, Isoform-I) gene was constructed with 19 aa N-terminal T7 tag and 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: RAB4A (HRES-1/RAB4; RAB4)
Accession Number: NP_004569
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 30 days.

Key References

Chen,D.Y., et al., *The Bro1-domain-containing protein Myopic/HDPTP coordinates with Rab4 to regulate cell adhesion and migration.* J. Cell. Sci. 125 (PT 20), 4841-4852 (2012)



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

Goueli, B.S., et al., *TBC1D16 is a Rab4A GTPase activating protein that regulates receptor recycling and EGF receptor signaling*. Proc. Natl. Acad. Sci. U.S.A. 109 (39), 15787-15792 (2012)

Ginsberg, S.D., et al., *Upregulation of select rab GTPases in cholinergic basal forebrain neurons in mild cognitive impairment and Alzheimer's disease*. J. Chem. Neuroanat. 42 (2), 102-110 (2011)

Applications

1. May be used for in vitro RAB4A mediated *cell surface receptor recycling* regulation study by intracellular delivery this protein with “ProFectin” reagent
2. May be used for mapping RAB4A protein-protein interaction.
3. May be used as specific substrate protein for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGEFGSTMSQTAMSETYDFLFLKFLVIGNAGTGKSCLLHQFIEKKFKDSSNHT
IGVEFGSKIINVGGKYVKLQIWDTAGQERFRSVTRSYRGAAGALLVYDITSRETYNALTNWLT
DARMLASQNIVIILCGNKKDLADREVTFLASRFAQENELMFLETSAITGENVEEAFVQCARK
ILNKIESGELDPERMGSGIQYGDAALRQLRSPRRAQAPNAQECGC