



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human RAB24 Protein
Catalog Number: hRP-1658
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. Human ras-related protein Rab24 (Rab24) is an unusual member of the RAB GTPase family with several striking features: 1) it has a very low intrinsic GTPase activity, 2) Rab24 carry two histine residues in its C-terminal domain, which may contributes its inefficient prenylation. 3) unlike other Rabs, Rab34 does not seem to form a detectable complex with GDI. 4) recent data indicated that Rab24 interacts with GABARAP protein, which may plays a role in regulating autophagic pathway.

Full-length human Rab24 cDNA (202 aa, derived from BC015534) 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: RAB24
Accession Number: NP_001026847
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

Militello RD, et al., *Rab24 is required for normal cell division*. Traffic 14 (5), 502-518



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Maltese WA, et al., *Mutant Rab24 GTPase is targeted to nuclear inclusions*. BMC Cell Biol. 3, 25 (2002)

Erdman RA, et al., *Rab24 is an atypical member of the Rab GTPase family. Deficient GTPase activity, GDP dissociation inhibitor interaction, and prenylation of Rab24 expressed in cultured cells*. J. Biol. Chem. 275 (6), 3848-3856 (2000)

Applications

1. May be used for in vitro RAB24 protein mediated autophagic regulation in various cancer cells study by intracellular delivery of this protein with “ProFectin” reagent.
2. May be used for mapping RAB24 protein-protein interaction.
3. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGEFSGQRVDVKVVMLGKEYVVGKTSLVERYVHDRFLVGP
YQNTIGAAFVAKVMSVGDRTVTLGIWDTAGSERYEAMSRIYYRGAKAAIVCYDLTDSSSFERAK
FWVKELRSLEEGCQIYLCGTKSDLLEEDRRRRRVDFHDVQDYADNIKAQLFETSSKTGQSVDEL
FQKVAEDYVSAAFQVMTEDEKGVLDLGQKPNPYFYSCCHH