



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 RAB15 Protein
Catalog Number: hRP-1677
Manufacturer: LD Biopharma, Inc.

Introduction

Rab family small G proteins that constitute more than 60 members in humans play a key role in the spatiotemporal regulation of membrane traffic. Each Rab protein recognizes distinct subsets of intracellular membranes and controls the specific membrane transport pathways. Rab proteins function as a molecular switch cycling between 'inactive' GDP-bound and 'active' GTP-bound forms. The GTP-bound Rab protein interacts with their effector protein(s) that mediate the specific function of each Rab protein. Rab15 was originally isolated as a brain-specific Rab protein regulating the endocytic recycling pathway and was recently identified as a downstream target of the neural transcription factor Atoh1. Recent data indicated that the balance of different Rab15 splicing forms plays a role in human neuroblastoma development.

Full-length human Rab15 cDNA (211 aa, Isoform-X1) was constructed by full-length gene synthesis 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: RAB15
Accession Number: XP_005267654.1
Species: Human
Size: 20 µg / Vial
Composition: 0.2 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

Pham TV, et al., *Rab15 alternative splicing is altered in spheres of neuroblastoma cells.* Oncol. Rep. 27 (6), 2045-2049 (2012)



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Nishimura N, et al., *Rab15 expression correlates with retinoic acid-induced differentiation of neuroblastoma cells*. *Oncol. Rep.* 26 (1), 145-151 (2011)

Strick DJ, et al., *Mammalian suppressor of Sec4 modulates the inhibitory effect of Rab15 during early endocytosis*. *J. Biol. Chem.* 277 (36), 32722-32729 (2002)

Applications

1. May be used for in vitro RAB15 protein mediated neuronal stem cell differentiation regulation study by intracellular delivery of this protein with “ProFectin” reagent.
2. May be used for mapping RAB15 protein-protein interaction assay.
3. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFAKQYDVLFRLLLIGDSGVGKTCLLCRFTDNEFHSS
HISTIGVDFKMKTI EVDGIKVR IQIWDTAGQERYQTITKQYYRRAQGI FLVYDISSERSYQHIM
KWVSDVDEYAPEGVQKILIGNKADEEQKRQVGREQQQLAKEYGMDFYETSACTNLNIKESFTR
LTELVLQahrkeleGLRMRASNELALAELEEEEGKPEGPANSSKTCWC