



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 RAB39 Protein
Catalog Number: hRP-1669
Manufacturer: LD Biopharma, Inc.

Introduction

Phagocytosis of pathogens by macrophages is an important process of the innate immune response. Pathogens are enveloped by phagocytic membranes to form phagosomes immediately following internalization. The phagosomes are then processed by a series of interactions with endosomes, resulting in phagosome maturation. During phagosome maturation, phagosomes fuse with lysosomes, in a process known as phagolysosome biogenesis, and acquire degradative and microbicidal properties. At least 22 Rab GTPases localize on the phagosome transiently or consecutively during progression of phagosome maturation, with Rab7, Rab20 and Rab39 regulating acidification of the phagosome.

Full-length human Rab39 cDNA (216 aa, Isoform-II, derived from BC028064) 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: RAB39 (Rab39A)
Accession Number: NP_059986
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

Seto S, et al., *Rab GTPases regulating phagosome maturation are differentially recruited to mycobacterial phagosomes*. Traffic 12 (4), 407-420 (2011)



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

Becker CE, et al., *Rab39a binds caspase-1 and is required for caspase-1-dependent interleukin-1beta secretion*. J. Biol. Chem. 284 (50), 34531-34537 (2009)

Applications

1. May be used for in vitro RAB39 protein mediated phagosome maturation regulation for various cells study by intracellular delivery of this protein with “ProFectin” reagent.
2. May be used for mapping RAB39 protein-protein interaction assay.
3. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFETIWIYQFRLIVIGDSTVKGKSCLLHRFTQGRFPGL
RSPACDPTVGVDFFSRLLEIEPGKRIKLQLWDTAGQERFRSITRSYYRNSVGGFLVFDITNRRS
FEHVKDWLEEAKMYVQPFRIVFLLVGHKCDLASQRQVTRREEAEKLSADCGMKYIETSAKDATNV
EESFTILTRDIYELIKKGEICIQDGWEGVKSGFVPNTVHSSEEAVKPRKECFC