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Produktinformation

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Rab5 Protein

Human Recombinant Rab5 Protein
Catalog No. SPR-121

StressMarq Biosciences INC.
Discovery through partnership | Excellence through quality

Overview

Product Name

Rab5 Protein

Description

Human Recombinant Rab5 Protein

Applications

WB, SDS-PAGE

Concentration

0.5 mg/ml

Conjugates

His tag

Nature

Recombinant

Species

Human

Expression System

E. coli

Amino Acid Sequence

MASRGATRPNGPNTGNKICQFKLVLLGESAVGKSSLVLRFVKGQFHEFQESTIGAAFLTQTVCLDDTTVKFEIWDTAGQERYHSLAPMYYRGAQAAIVVYDI
TNEESFARAKNWVKELQRQASPNIVIALSGNKADLANKRAVDFQEAQSYADDNSLLFMETSAKTSMNVNEIFMAIAKKLPKNEPQNPGANSARGRGV

Properties

Storage Buffer

20mM Tris/HCl pH7.5, 0.45M NaCl, 10% glycerol, 0.5mM DTT

Storage Temperature

-20ºC

Shipping Temperature

Blue Ice or 4ºC

Purification

Affinity Purified

Specificity

~26 kDa

Cite This Product

Human Recombinant Rab5 Protein (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPR-121)

Certificate Of Analysis

This product has been certified >90% pure using SDS-PAGE analysis.

Biological Description

Alternative Names

Rab 5A Protein, RAS associated protein RAB5A Protein, Ras related protein Rab 5 A Protein

Research Areas

Cancer, Heat Shock

Cellular Localization

Cell membrane, Early Endosome Membrane, Melanosome

Accession Number

BC001267

Gene ID

5868

Swiss Prot

P20339

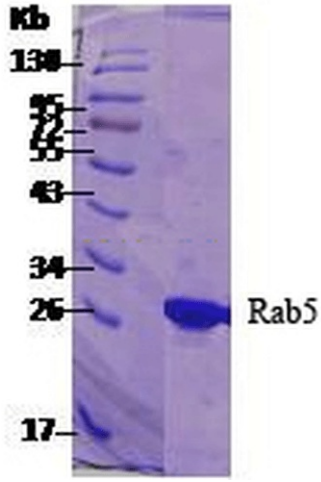
Scientific Background

Rab5 is a 24kDa member of the Rab family of small guanosine triphosphatases (GTPases), Ras superfamily. Rab GTPases are central regulators of membrane trafficking in the eukaryotic cell. Their regulatory capacity depends on their ability to cycle between the GDP -bound inactive and GTP-bound active states. This conversion is regulated by GDP/GTP exchange factors (GEPs), GDP dissociation inhibitors (GDIs) and GTPase-activating proteins (GAPs) (1, 2). Activation of a Rab protein is coupled to its association with intracellular membranes, allowing it to recruit downstream effector proteins to the cytoplasmic surface of a subcellular compartment (3). Through these proteins, Rab GTPases regulate vesicle formation, actin- and tubulin-dependent vesicle movement, and membrane fusion(1). Rab proteins contain conserved regions involved in guanine-nucleotide binding, and hyper variable COHO-terminal domains with a cysteine motif implicated in subcellular targeting. Post-translational modification of the cysteine motif with one or two geranyl groups is essential for the membrane association and correct intracellular localization of Rab proteins(3). Each Rab shows a characteristic subcellular distribution (4). In particular, Rab5 is ubiquitously expressed in human tissues. It localizes mainly to early endosomes, but is also present on the plasma membrane. It regulates the fusion between endocytic vesicles and early endosomes, as well as the homotypic fusion between early endosomes (5). Among the proteins recruited by the GTP-bound active Rab5 are Rabaptin-5 and EEA1 (6). Anti-Rab5 may be used as an early endosome marker.

References

1. Stenmark H., and Olkkonen V.M. (2001) Genome Biol. 2: 3007.1-3007.7.
2. Takai Y., et al. (2001) Physiol. Rev. 8:, 153-208.
3. Ali B.R., et al. (2004) J. Cell Sci. 117: 6401-6412.
4. Zerial M., and McBride H. (2001) Nat. Rev. Mol. Cell Biol. 2: 107-117.
5. Sonnichsen B., et al. (2000) J. Cell Biol. 149: 901-913
6. Woodman P.G. (2000) Traffic. 1: 695-701.

Product Images



SDS-PAGE of 26kDa human Rab5 protein (SPR-121).

Product Citations (0)

Currently there are no citations for this product.

Reviews

There are no reviews yet.