abcam

Product datasheet

Recombinant mouse Rab1A protein ab90795

Description

Product name	Recombinant mouse Rab1A protein
Biological activity	Activity: 100 pmol of protein can bind > 80 pmol of GDP.
Purity	> 90 % SDS-PAGE.
Expression system	Escherichia coli
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Mouse

Specifications

Our Abpromise guarantee covers the use of **ab90795** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Functional Studies
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7.20 Constituents: 0.0308% DTE (1,4-Dithioerythritol), 0.00044% GDP, 0.019% Magnesium chloride, 0.595% HEPES, 0.58% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function	The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different

	sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. RAB1A regulates vesicular protein transport from the endoplasmic reticulum (ER) to the Golgi compartment and on to the cell surface, and plays a role in IL-8 and growth hormone secretion. Regulates the level of CASR present at the cell membrane. Plays a role in cell adhesion and cell migration, via its role in protein trafficking. Plays a role in autophagosome assembly and cellular defense reactions against pathogenic bacteria. Plays a role in microtubule-dependent protein transport by early endosomes and in anterograde melanosome transport.
Sequence similarities	Belongs to the small GTPase superfamily. Rab family.
Post-translational modifications	Phosphorylated by CDK1 kinase during mitosis. Phosphocholinated at Ser-79 by L.pneumophila AnkX, leading to displace GDP dissociation inhibitors (GDI). Both GDP-bound and GTP-bound forms can be phosphocholinated. Dephosphocholinated by L.pneumophila Lem3, restoring accessibility to L.pneumophila GTPase effector LepB.
Cellular localization	Golgi apparatus. Endoplasmic reticulum. Early endosome. Cytoplasm, cytosol. Membrane. Melanosome. Alternates between membrane-associated and cytosolic forms.

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