

### Recombinant mouse Rab1A protein ab90795

#### Description

---

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

<b>Applications</b>	SDS-PAGE Functional Studies
---------------------	--------------------------------

<b>Form</b>	Liquid
-------------	--------

#### Preparation and Storage

---

<b>Stability and Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80°C. 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

---

<b>Function</b>	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.

---

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

**Our Abpromise to you: Quality guaranteed and expert technical support**

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

**Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors