

Rab5A

rat, recombinant, *E. coli*

Cat. No.	Amount
PR-184	50 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -80°C

Avoid freeze / thaw cycles

Activity

100 pmol of protein can bind > 80 pmol of GDP.

Form

Liquid. Supplied in 50 mM Tris, pH 8.0, 100 mM NaCl, 10 mM MgCl₂, 10 µM GDP and 2 mM mercaptoethanol.

Purity

≥ 90% by SDS-PAGE.

Description

Rab5A is a small GTPase that belongs to the Ras superfamily. Rab proteins play an important role in various aspects of membrane traffic, including cargo selection, vesicle budding, vesicle motility, tethering, docking, and fusion.

The small Rab5A GTPase is localized to plasma membrane, clathrin coated vesicles, caveosomes and early endosomes. Rab5 is a key regulator of the early endocytic pathway and plays a role in early endosome fusion and caveolar vesicle targeting to early endosomes. Furthermore it is also implicated in EGF receptor activation and apoptotic cell engulfment.

Selected References:

- Stenmark H. and Olkkonen V.M. (2001) The Rab GTPase family. *Genome Biol.* **2**:30071.
- Yamaguchi et al. (2002) A GDP/GTP exchange protein for the Rab3 small G protein family up-regulates a postdocking step of synaptic exocytosis in central synapses. *Proc. Natl. Acad. Sci. USA.* **99**:14536.
- Kitano M. et al. (2008) Imaging of Rab5 activity identifies essential regulators for phagosome maturation. *Nature* **453** (7192):24