DATA SHEET

Jena Bioscience

Rab4$^{GST-His}$

Ras-associated, small GTP-binding protein
human, recombinant, *E. coli*

Cat. No.	Amount
PR-116	50 µg

For general laboratory use.

Shipping: shipped on dry ice

Storage Conditions: store at -80 °C

Additional Storage Conditions: avoid freeze/thaw cycles

Shelf Life: 12 months

Molecular Weight: 53 kDa

Accession number: NM_004578

Purity: > 90 % (SDS-PAGE)

Form: liquid (Supplied in 50 mM Tris-HCl pH 8.0, 200 mM NaCl, 10 mM $MgCl_2$ and 2 mM beta-mercaptoethanol)

Description:
Rab4 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 monomeric GTPase Rab4 is associated with early endosomes and regulates recycling vesicle formation. Together with Rab5 it act to control influx and efflux out of early endosomes. The GST-Tag facilitates the protein's application in typical GST pull-down assays.

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

Selected References:

Chamberlain *et al.* (2008) Disrupted RabGAP Function of the p85 Subunit of Phosphatidylinositol 3-Kinase Results in Cell Transformation. *J. Biol. Chem.* **283**:15861.

Stenmark *et al.* (2001) The Rab GTPase family. *Genome Biol.* **2**:30071.

Mohrmann *et al.* (2002) Rab4 function in membrane recycling from early endosomes depends on a membrane to cytoplasm cycle. *J. Biol. Chem.* **277**:32029.

Somsel *et al.* (2000) Rab GTPases coordinate endocytosis. *J. Cell Sci.* **113**:183.

Chamberlain *et al.* (2004) The p85alpha Subunit of Phosphatidylinositol 3-Kinase Binds to and Stimulates the GTPase Activity of Rab Proteins. *J. Biol. Chem.* **279 (47)**:48607.