

Datasheet for ABIN1686703

RAB5 Protein (His tag)**1** Image[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	RAB5 (RAB5A)
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAB5 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MASRGATRPN GPNTGNKICQ FKLVLGESA VGKSSLVLRV VKGQFHEFQE STIGAAFLTQ TVCLDDTTVK FEIWDTAGQE RYHSLAPMY RGAQAAIVVY DITNEESFAR AKNWVKELQR QASPNIVIAL SGNKADLANK RAVDFQEAQS YADDNSLLFM ETSAKTSMNV NEIFMAIAKK LPKNPQNPG ANSARGRGVD LTEPTQPTRN QCCSN
Specificity:	~26 kDa
Purification:	Affinity Purified
Purity:	>90%

Target Details

Target:	RAB5 (RAB5A)
Alternative Name:	Rab5 (RAB5A Products)
Background:	Rab5 is a 24 kDa member of the Rab family of small guanosine triphosphatases (GTPases),

Target Details

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.

Molecular Weight: approx. 26 kDa

Gene ID: 5868

UniProt: [P20339](#)

Pathways: [Smooth Muscle Cell Migration](#), [Regulation of long-term Neuronal Synaptic Plasticity](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

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

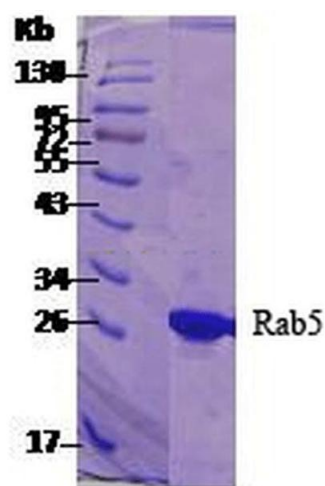
Restrictions: For Research Use only

Handling

Concentration: Lot specific

Buffer: 20 mM Tris/HCl pH 7.5, 0.45M NaCl, 10 % glycerol, 0.5 mM DTT

Storage: -20 °C



SDS-PAGE

Image 1. SDS-PAGE of 26 kDa human Rab5 protein (ABIN1686702, ABIN1686703 and ABIN1686704).