

Product datasheet for **TA326380**

Rab5 (RAB5A) Rabbit Polyclonal Antibody [Clone ID: N/A]

Product data:

Product Type:	Primary Antibodies
Clone Name:	N/A
Applications:	IF, WB
Recommended Dilution:	WB: 1:1000
Reactivity:	Human, Mouse, Monkey, Bovine, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Human Rab5 synthetic peptide conjugated to KLH; identical to dog Rab5 sequence over the residues
Formulation:	PBS, 50% glycerol, 0.09% sodium azide
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	RAB5A, member RAS oncogene family
Database Link:	NP_004153 Entrez Gene 64633 Rat Entrez Gene 271457 Mouse Entrez Gene 5868 Human P20339



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Background:

Rab5 is a 24kDa member of the Rab family of small guanosine triphosphatases (GTPases), 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) . 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 . Through these proteins, Rab GTPases regulate vesicle formation, actin- and tubulin-dependent vesicle movement, and membrane fusion. Rab proteins contain conserved regions involved in guanine-nucleotide binding, and hypervariable COOH-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. Each Rab shows a characteristic subcellular distribution . 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 . Among the proteins recruited by the GTP-bound active Rab5 are Rabaptin-5 and EEA1 . Anti-Rab5 may be used as an early endosome marker.

Synonyms:

RAB5

Note:

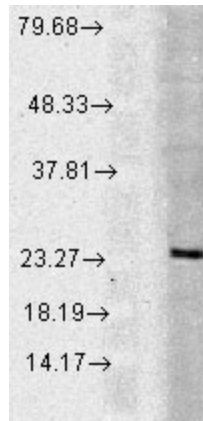
The antibody recognizes 26kDa Rab5 of the above species origins.

Protein Families:

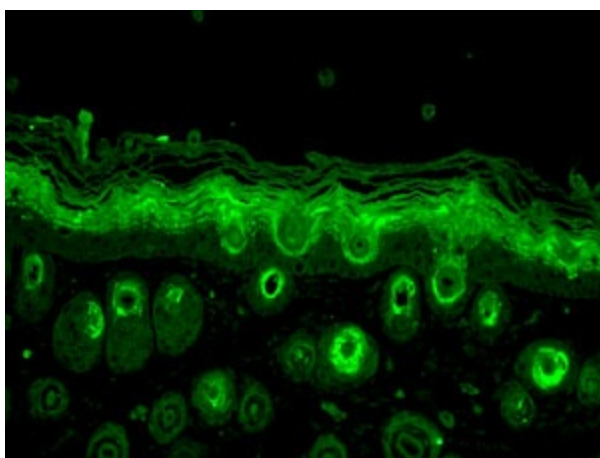
Druggable Genome

Protein Pathways:

Amyotrophic lateral sclerosis (ALS), Endocytosis

Product images:

Western blot analysis of Rab5 in a human cell line mix using a 1:1000 dilution of the antibody



Rab5 visualized using the antibody