

Rabbit Rab10 Polyclonal Antibody | anti-Rab10 antibody

Phospho-Rab10 (Thr73) Antibody

CATALOG # AAA329265	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry
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PRODUCT SYNONYMS

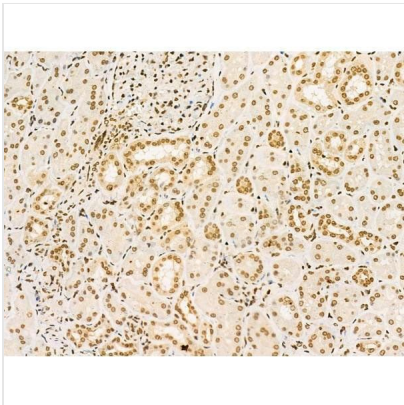
Rab10; Polyclonal Antibody; Phospho-Rab10 (Thr73) Antibody; GTP binding protein RAB10; RAB10 member RAS oncogene family; RAB10_HUMAN; Ras related GTP binding protein; Ras related GTP binding protein RAB10; Ras-related protein Rab-10; anti-Rab10 antibody

PRODUCT SPECIFICATIONS

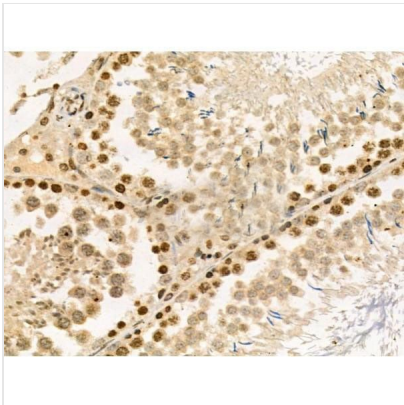
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-Rab10 (Thr73) Antibody detects endogenous levels of Rab10 only when phosphorylated at Thr73. Tissue Specificity: Expressed in the hippocampus. Expressed in neutrophils (at protein level).
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-Rab10 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human Rab10 around the phosphorylation site of Thr73.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation of Thr-73 in the switch II region by LRRK2 prevents the association of RAB regulatory proteins, including CHM, CHML and RAB GDP dissociation inhibitors GDI1 and GDI2.
Subunit Structure	Interacts with MYO5A; mediates the transport to the plasma membrane of SLC2A4/GLUT4 storage vesicles. Interacts with GDI1 and with GDI2; negatively regulates RAB10 association with membranes and activation. Interacts (GDP-bound form) with LLGL1; the interaction is direct and promotes RAB10 association with membranes and activation through competition with the Rab inhibitor GDI1 (By similarity). Interacts with EXOC4; probably associates with the exocyst (By similarity). Interacts (GTP-bound form) with MICALCL, MICAL1, MICAL3, EHBP1 and EHBP1L1; at least in case of MICAL1 two molecules of RAB10 can bind to one molecule of MICAL1. Interacts with TBC1D13 (By similarity). Interacts with SEC16A (By similarity). Interacts with CHM and CHML. Interacts with LRRK2; interaction facilitates phosphorylation of Thr-73. Interacts (when phosphorylated on Thr-73) with RILPL1 and RILPL2.
Similarity	Belongs to the small GTPase superfamily. Rab family.

Subcellular Location	Cytoplasmic vesicle membrane>Lipid-anchor>Cytoplasmic side. Golgi apparatus membrane. Golgi apparatus>trans-Golgi network membrane. Endosome membrane. Recycling endosome membrane. Cytoplasmic vesicle>Phagosome membrane. Cytoplasm>Cytoskeleton>Cilium basal body. Endoplasmic reticulum membrane. Cytoplasm>Perinuclear region. Note: Associates with SLC2A4/GLUT4 storage vesicles (PubMed:22908308). Localizes to the base of the cilium when phosphorylated by LRRK2 on Thr-73 (PubMed:20576682, PubMed:30398148). Transiently associates with phagosomes (By similarity). Localizes to the endoplasmic reticulum at domains of new tubule growth (PubMed:23263280).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemisry)
 At 1/100 staining Human kidney cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)
 Staining Rat testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
 At 1/100 staining Rat muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-Rab10 antibody

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 set of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. That Rab is mainly involved in the biosynthetic transport of proteins from the Golgi to the plasma membrane. Regulates, for instance, SLC2A4/GLUT4 glucose transporter-enriched vesicles delivery to the plasma membrane (By similarity). In parallel, it regulates the transport of TLR4, a toll-like receptor to the plasma membrane and therefore may be important for innate immune response (By similarity). Plays also a specific role in asymmetric protein transport to the plasma membrane. In neurons, it is involved in axonogenesis through regulation of vesicular membrane trafficking toward the axonal plasma membrane (By similarity). In epithelial cells, it regulates transport from the Golgi to the basolateral membrane. May play a role in the basolateral recycling pathway and in phagosome maturation (By similarity). May play a role in endoplasmic reticulum dynamics and morphology controlling tubulation along microtubules and tubules fusion. Together with LRRK2, RAB8A, and RILPL1, it regulates ciliogenesis. When phosphorylated by LRRK2 on Thr-73, binds RILPL1 and inhibits ciliogenesis.

NCBI AND UNIPROT INFORMATION

NCBI GI #	46577638
NCBI GeneID	10890
UniProt Accession #	P61026 ; O88386 ; Q6IA52 ; Q9D7X6 ; Q9H0T3 ; D6W538
Molecular Weight	200
NCBI Official Full Name	Ras-related protein Rab-10
NCBI Official Synonym Full Names	RAB10, member RAS oncogene family
NCBI Official Symbol	RAB10
NCBI Protein Information	ras-related protein Rab-10; GTP-binding protein RAB10; ras-related GTP-binding protein
UniProt Protein Name	Ras-related protein Rab-10
UniProt Gene Name	RAB10
UniProt Entry Name	RAB10_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/rab10-antibody-peptide-elisa-immunohistochemistry-elisa/329265>