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Rab10 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI10191

Product Information

Application	WB
Primary Accession	P61027
Other Accession	NM_016676, NP_057885
Reactivity	Human, Mouse, Rat, Zebrafish, Pig, Dog, Horse, Bovine, Sheep
Predicted	Human, Mouse, Rat, Zebrafish, Pig, Chicken, Dog, Guinea Pig, Bovine, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22541

Additional Information

Gene ID	19325
Alias Symbol	AW107754
Other Names	Ras-related protein Rab-10, Rab10
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-Rab10 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	Rab10 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Rab10 {ECO:0000312|MGI:MGI:105066}
Function	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 (By similarity). RAB10 is mainly involved in the biosynthetic transport of proteins from the Golgi to the plasma membrane (PubMed:17403373, PubMed:20643919, PubMed:22908308, PubMed:27354378). Regulates, for instance, SLC2A4/GLUT4 glucose transporter-enriched vesicles delivery to the plasma membrane (PubMed:17403373, PubMed:22908308, PubMed:27354378). In parallel,

RAB10 regulates the transport of TLR4, a toll-like receptor to the plasma membrane and therefore may be important for innate immune response (PubMed:20643919). Also plays a specific role in asymmetric protein transport to the plasma membrane (By similarity). In neurons, involved in axonogenesis through regulation of vesicular membrane trafficking toward the axonal plasma membrane (By similarity). In epithelial cells, regulates transport from the Golgi to the basolateral membrane (By similarity). 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, regulates ciliogenesis. When phosphorylated by LRRK2 on Thr-73, binds RILPL1 and inhibits ciliogenesis. Participates in the export of a subset of neosynthesized proteins through a Rab8-Rab10-Rab11-dependent endososomal export route. Targeted to and stabilized on stressed lysosomes through LRRK2 phosphorylation where it promotes the extracellular release of lysosomal content through EHBP1 and EHNP1L1 effector proteins (PubMed:30209220).

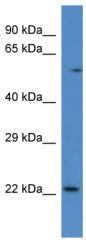
Cellular Location

Cytoplasmic vesicle membrane; Lipid-anchor; Cytoplasmic side. Golgi apparatus, trans-Golgi network membrane {ECO:0000250|UniProtKB:P24409}. Endosome membrane {ECO:0000250|UniProtKB:P61026}. Recycling endosome membrane {ECO:0000250|UniProtKB:P24409}. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:P24409}. Cytoplasm, cytoskeleton, cilium basal body Endoplasmic reticulum membrane Cytoplasm, perinuclear region. Lysosome. Note=Associates with SLC2A4/GLUT4 storage vesicles (PubMed:27354378). Localizes to the base of the cilium when phosphorylated by LRRK2 on Thr-73 (PubMed:20576682, PubMed:27354378). Transiently associates with phagosomes (By similarity). Localizes to the endoplasmic reticulum at domains of new tubule growth (By similarity). Localizes to enlarged lysosomes through LRRK2 phosphorylation (PubMed:30209220). {ECO:0000250|UniProtKB:P24409, ECO:0000250|UniProtKB:P61026, ECO:0000269|PubMed:20576682, ECO:0000269|PubMed:27354378, ECO:0000269|PubMed:30209220}

Tissue Location

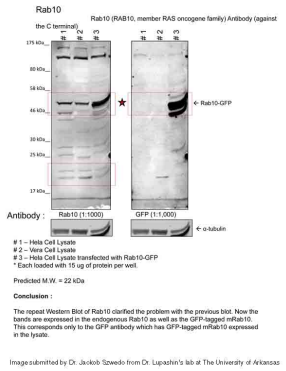
Expressed in the brain, specifically neurons (at protein level).

Images



Rab1 antibody - C-terminal region (AI1191) validated by WB using Mouse Kidney lysate at 1µg/ml.

Sample Type: 1. Human Cervical Cancer cell lysate (15ug)
2. Monkey Fibroblast cell lysate (15ug)
3. Human Cervical Cancer Cell transfected with mouse Rab1-GFP (15ug)
Primary Dilution: 1:1



Secondary Antibody: goat anti-Rabbit
Secondary Dilution: 1:4,
Image
Submitted by: Dr. Jakob Szwedo, Dr. Lupashin's Lab
University of Arkansas for Medical Sciences

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.