

**Rab7 Rabbit mAb**  
**Catalog # AP75988****Specification**

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**Rab7 Rabbit mAb - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC-P, IHC-F, ICC  |
| Primary Accession | <a href="#">P51149</a> |
| Reactivity        | Human, Mouse, Rat      |
| Host              | Rabbit                 |
| Clonality         | Monoclonal Antibody    |
| Calculated MW     | 23490                  |

**Rab7 Rabbit mAb - Additional Information****Gene ID** 7879**Other Names**  
RAB7A**Dilution**  
WB~~1/500-1/1000  
IHC-P~~N/A  
IHC-F~~N/A  
ICC~~N/A**Format**  
50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.**Storage**  
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.**Rab7 Rabbit mAb - Protein Information****Name** RAB7A ([HGNC:9788](#))**Synonyms** RAB7**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 sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion (PubMed:<a href="http://www.uniprot.org/citations/38538795" target="\_blank">38538795</a>). In its active state, RAB7A binds to a variety of effector proteins playing a key role in the regulation of endo-lysosomal trafficking. Governs early-to-late endosomal maturation, microtubule minus-end as well as plus-end directed endosomal migration and positioning, and endosome- lysosome transport through different protein-protein interaction cascades. Also plays a central role in growth-factor-mediated cell signaling, nutrient-transporter mediated nutrient uptake, neurotrophin

transport in the axons of neurons and lipid metabolism. Also involved in regulation of some specialized endosomal membrane trafficking, such as maturation of melanosomes, pathogen-induced phagosomes (or vacuoles) and autophagosomes. Plays a role in the maturation and acidification of phagosomes that engulf pathogens, such as *S.aureus* and *M.tuberculosis*. Plays a role in the fusion of phagosomes with lysosomes. In concert with RAC1, plays a role in regulating the formation of RBs (ruffled borders) in osteoclasts. Controls the endosomal trafficking and neurite outgrowth signaling of NTRK1/TRKA (PubMed:<a href="http://www.uniprot.org/citations/11179213" target="\_blank">11179213</a>, PubMed:<a href="http://www.uniprot.org/citations/12944476" target="\_blank">12944476</a>, PubMed:<a href="http://www.uniprot.org/citations/14617358" target="\_blank">14617358</a>, PubMed:<a href="http://www.uniprot.org/citations/20028791" target="\_blank">20028791</a>, PubMed:<a href="http://www.uniprot.org/citations/21255211" target="\_blank">21255211</a>). Regulates the endocytic trafficking of the EGF-EGFR complex by regulating its lysosomal degradation. Involved in the ADRB2-stimulated lipolysis through lipophagy, a cytosolic lipase-independent autophagic pathway (By similarity). Required for the exosomal release of SDCBP, CD63 and syndecan (PubMed:<a href="http://www.uniprot.org/citations/22660413" target="\_blank">22660413</a>). Required for vesicular trafficking and cell surface expression of ACE2 (PubMed:<a href="http://www.uniprot.org/citations/33147445" target="\_blank">33147445</a>). May play a role in PRPH neuronal intermediate filament assembly (By similarity).

### Cellular Location

Cytoplasmic vesicle, phagosome membrane; Peripheral membrane protein; Cytoplasmic side. Late endosome membrane; Peripheral membrane protein; Cytoplasmic side Lysosome membrane; Peripheral membrane protein; Cytoplasmic side Melanosome membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasmic vesicle, autophagosome membrane; Peripheral membrane protein; Cytoplasmic side. Lipid droplet {ECO:0000250|UniProtKB:P51150}. Endosome membrane; Peripheral membrane protein. Cytoplasmic vesicle {ECO:0000250|UniProtKB:P51150} Mitochondrion membrane; Peripheral membrane protein. Note=Colocalizes with OSBPL1A at the late endosome (PubMed:16176980). Found in the ruffled border (a late endosomal-like compartment in the plasma membrane) of bone-resorbing osteoclasts. Recruited to phagosomes containing *S.aureus* or *Mycobacterium* (PubMed:21255211). Lipid droplet localization is increased upon ADRB2 stimulation (By similarity). Recruited to damaged mitochondria during mitophagy in a RIMOC1-dependent manner (PubMed:34432599). {ECO:0000250|UniProtKB:P51150, ECO:0000269|PubMed:16176980, ECO:0000269|PubMed:21255211, ECO:0000269|PubMed:34432599}

### Tissue Location

Widely expressed; high expression found in skeletal muscle.

### Rab7 Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Rab7 Rabbit mAb - Images



