

Rab5 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10352**Specification**

Rab5 Antibody - Product Information

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|-------------------|-----------------------------------|
| Application | WB |
| Primary Accession | P20339 |
| Reactivity | Human, Mouse, Rat, Monkey, Bovine |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Calculated MW | 23659 |

Rab5 Antibody - Additional Information**Gene ID 5868**

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| Application & Usage | Western blotting (0.5-4 µg/ml), immunoprecipitation and immunohistochemistry. However, the optimal concentrations should be determined individually. The antibody recognizes 26 kDa Rab5 of human, mouse, monkey, bovine and rat origins. Reactivity to other species has not been tested. |
|---------------------|--|

Other Names

RAB5 , Rab5a , RAS , RAS associated protein , RAB5A , RAB 5A , RAB 5

Target/Specificity

Rab5

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.5 mg/ml) affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

Rab5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Rab5 Antibody - Protein Information

Name RAB5A

Synonyms RAB5

Function

Small GTPase which cycles between active GTP-bound and inactive GDP-bound states. In its active state, binds to a variety of effector proteins to regulate cellular responses such as of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Active GTP-bound form is able to recruit to membranes different sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. RAB5A is required for the fusion of plasma membranes and early endosomes (PubMed:10818110, PubMed:14617813, PubMed:16410077, PubMed:15378032). Contributes to the regulation of filopodia extension (PubMed:14978216). Required for the exosomal release of SDCBP, CD63, PDCD6IP and syndecan (PubMed:22660413). Regulates maturation of apoptotic cell-containing phagosomes, probably downstream of DYN2 and PIK3C3 (By similarity).

Cellular Location

Cell membrane; Lipid-anchor; Cytoplasmic side. Early endosome membrane; Lipid- anchor. Melanosome. Cytoplasmic vesicle. Cell projection, ruffle {ECO:0000250|UniProtKB:P18066}. Membrane Cytoplasm, cytosol. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q9CQD1}. Endosome membrane Note=Enriched in stage I melanosomes (PubMed:17081065). Alternates between membrane-bound and cytosolic forms (Probable) {ECO:0000269|PubMed:17081065, ECO:0000305}

Rab5 Antibody - 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](#)

Rab5 Antibody - Images**Rab5 Antibody - Background**

Rab5 is a 24 kDa GTP-binding protein that is localized to the cytoplasmic side of the plasma membrane, clathrin-coated vesicles, and early endosomes. Rab5 is believed to regulate vesicle

fusion through a cycle of GDP/GTP exchange and GTP hydrolysis. The different guanine nucleotide binding states of rab5 is postulated to affect its ability to associate or dissociate with membranes during endocytotic membrane traffic. Its GTP-bound form, which represents the active form of Rab5, associates with membrane and regulates vesicle docking and fusion.