

## **Rab5 Antibody**

Rabbit mAb Catalog # AP90532

#### **Specification**

## **Rab5 Antibody - Product Information**

Application WB, IHC
Primary Accession P20339
Reactivity Rat

Clonality Monoclonal

**Other Names** 

RAB5A; RAB5; RAS associated protein RAB5A; Ras related protein Rab 5A;

Isotype Rabbit IgG
Host Rabbit
Calculated MW 23659 Da

# **Rab5 Antibody - Additional Information**

Dilution WB~~1:1000

IHC~~1:100~500

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

Rab5

Description Rab5 is a member of the Ras superfamily

of small Rab GTPases. Rab5 is localized at

the plasma membrane and early endosomes and functions as a key regulator of vesicular trafficking during early endocytosis (1). The conformational change between Rab5 GTP/GDP states is essential for its biological function as a rate limiting regulator at multiple steps

during endocytosis.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline ,

pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid

freeze / thaw cycle.

#### **Rab5 Antibody - Protein Information**

Name RAB5A (HGNC:9783)

**Synonyms RAB5** 

## **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. RAB5A is required for the fusion of plasma membranes and early endosomes (PubMed:<a href="http://www.uniprot.org/citations/10818110" target="\_blank">10818110</a>, PubMed:<a href="http://www.uniprot.org/citations/14617813" target="\_blank">14617813</a>, PubMed:<a href="http://www.uniprot.org/citations/15378032" target="\_blank">15378032</a>, PubMed:<a href="http://www.uniprot.org/citations/16410077" target="\_blank">16410077</a>). Contributes to the regulation of filopodia extension (PubMed:<a

href="http://www.uniprot.org/citations/14978216" target="\_blank">14978216</a>). Required for the exosomal release of SDCBP, CD63, PDCD6IP and syndecan (PubMed:<a href="http://www.uniprot.org/citations/22660413" target="\_blank">22660413</a>). Regulates maturation of apoptotic cell-containing phagosomes, probably downstream of DYN2 and PIK3C3 (By similarity).

#### **Cellular Location**

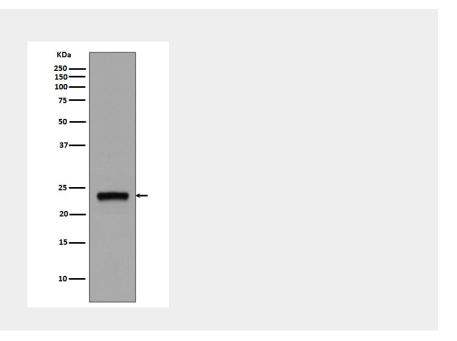
Cell membrane; Lipid-anchor; Cytoplasmic side. Early endosome membrane; Lipid- anchor. Melanosome. Cytoplasmic vesicle. Cell projection, ruffle {ECO:0000250|UniProtKB:P18066}. Membrane Cytoplasm, cytosol. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q9CQD1}. Endosome membrane Note=Enriched 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 Cytomety
- Cell Culture

#### Rab5 Antibody - Images







Western blot analysis of Rab5 expression in MCF-7 cell lysate.