

Rab5 Antibody

Rabbit mAb

Catalog # AP90532

Product Information

Application	WB, IHC
Primary Accession	P20339
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	RAB5A;RAB5; RAS associated protein RAB5A; Ras related protein Rab 5A;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	23659

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200
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.

Protein Information

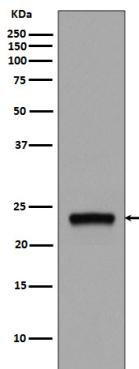
Name	RAB5A (HGNC:9783)
Synonyms	RAB5
Function	The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to 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 and involved in early endocytic trafficking (PubMed: 10818110 , PubMed: 14617813 , PubMed: 15378032 , PubMed: 16086013 , PubMed: 16410077 , PubMed: 17562788). Required for EEA1 recruitment to early endosomes (PubMed: 16086013 , PubMed: 17562788). Recruits FERRY complex to early endosomes, where

FERRY links early endosomes with a subgroup of mRNAs to enable mRNA intracellular distribution (PubMed:[37267906](#)). Recruits RABEP1/Rabaptin-5 effector to early endosomes, thereby promoting endocytic membrane fusion (By similarity). Required for EGF and transferrin endocytosis and trafficking through early endosomes (PubMed:[16086013](#), PubMed:[17562788](#)). 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}

Images



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

Image not found : 202311/AP90532-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human colon, using Rab5 Antibody.

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