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KD-Validated Anti-RAB5A Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1827

Product Information

Application	WB, FC
Primary Accession	P20339
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB4520
Calculated MW	23659
Gene Name	RAB5A
Aliases	RAB5A; RAB5A, Member RAS Oncogene Family; RAB5; RAS-Associated Protein RAB5A; Ras-Related Protein Rab-5A; EC 3.6.5.2
Immunogen	A synthesized peptide derived from human Rab5

Additional Information

Gene ID	5868
Other Names	Ras-related protein Rab-5A, 3.6.5.2, RAB5A, RAB5

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}

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