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KD-Validated Anti-RAB5A Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1827

Specification

KD-Validated Anti-RAB5A Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	P20339
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 24 kDa, observed, 24 kDa KDa**
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**

KD-Validated Anti-RAB5A Rabbit Monoclonal Antibody - Additional Information

Gene ID	**5868**

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

KD-Validated Anti-RAB5A Rabbit Monoclonal 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 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

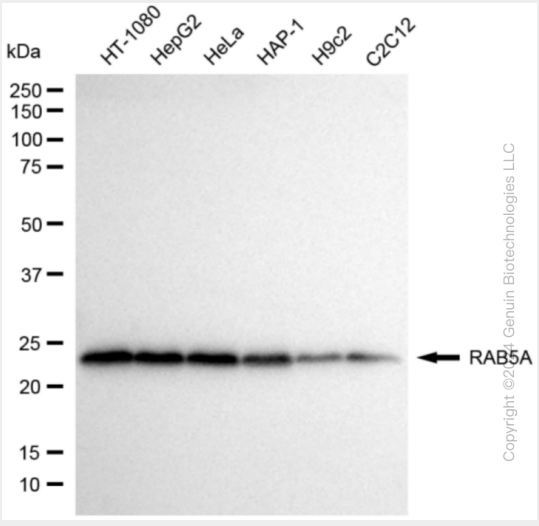
Cell membrane; Lipid-anchor; Cytoplasmic side. Early endosome membrane; Lipid-anchor. Melanosome Cytoplasmic vesicle. Cell projection, ruffle {ECO:0000250|UniProtKB:P18066}. Membrane. Cytoplasm, cytosol. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q9CQD1}. Endosome membrane Note=Enriched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

KD-Validated Anti-RAB5A Rabbit Monoclonal 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

KD-Validated Anti-RAB5A Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-RAB5A antibody (Cat#AGI1827). Total cell lysates (30 µg)

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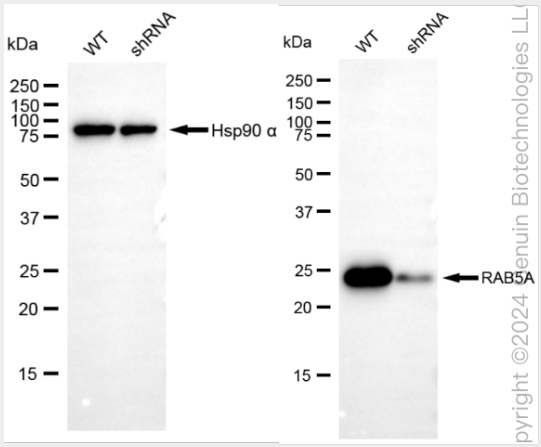
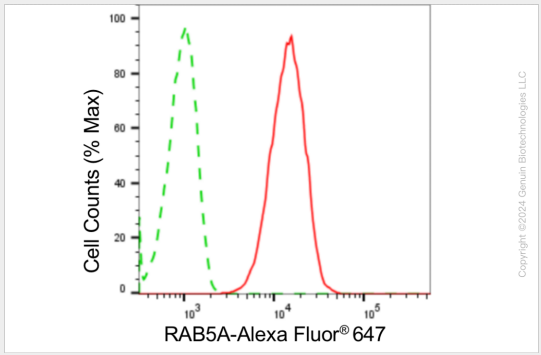
from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-RAB5A antibody (Cat#AGI1827, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-RAB5A antibody (Cat#AGI1827). RAB5A expression in wild-type (WT) and RAB5A shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-RAB5A antibody (Cat#AGI1827, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of RAB5A expression in HepG2 cells using anti-RAB5A antibody (Cat#AGI1827, 1:2,000). Green, isotype control; red, RAB5A.