

Rab 11A (A-6): sc-166912

BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins, which includes the Ral/Rec, Rap, R-Ras and Rho/Rab subfamilies, exhibit 30-60% homology with Ras p21. Accumulating data suggests an important role for Rab proteins, either in endocytosis or in biosynthetic protein transport. The transport of newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves at each stage the movement of carrier vesicles, a process that appears to involve Rab protein function. The possibility that Rab proteins might also direct the exocytosis from secretory vesicles to the plasma membrane is supported by the observation that in yeast, the SEC4 protein, which is 40% homologous to Rab proteins, is associated with secretory vesicles. Several members of the Rab subfamily have been identified, each of which is found at a particular stage of a membrane transport pathway.

CHROMOSOMAL LOCATION

Genetic locus: RAB11A (human) mapping to 15q22.31; Rab11a (mouse) mapping to 9 C.

SOURCE

Rab 11A (A-6) is a mouse monoclonal antibody raised against amino acids 130-216 of Rab 11A of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rab 11A (A-6) is available conjugated to agarose (sc-166912 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166912 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166912 PE), fluorescein (sc-166912 FITC), Alexa Fluor® 488 (sc-166912 AF488), Alexa Fluor® 546 (sc-166912 AF546), Alexa Fluor® 594 (sc-166912 AF594) or Alexa Fluor® 647 (sc-166912 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166912 AF680) or Alexa Fluor® 790 (sc-166912 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Rab 11A (A-6) is recommended for detection of Rab 11A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Rab 11A (A-6) is also recommended for detection of Rab 11A in additional species, including equine, canine, bovine and porcine.

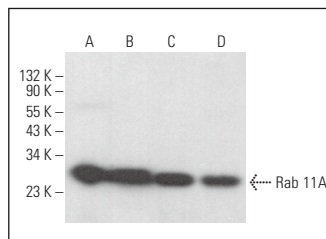
Suitable for use as control antibody for Rab 11A siRNA (h): sc-36340, Rab 11A siRNA (m): sc-36341, Rab 11A shRNA Plasmid (h): sc-36340-SH, Rab 11A shRNA Plasmid (m): sc-36341-SH, Rab 11A shRNA (h) Lentiviral Particles: sc-36340-V and Rab 11A shRNA (m) Lentiviral Particles: sc-36341-V.

Molecular Weight of Rab 11A: 25 kDa.

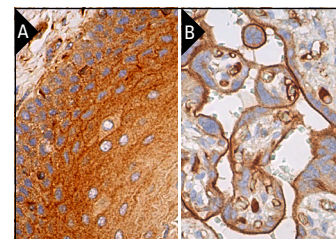
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Rab 11A (A-6): sc-166912. Western blot analysis of Rab 11A expression in Hep G2 (A), RT-4 (B), M1 (C) and 3T3-L1 (D) whole cell lysates.



Rab 11A (A-6): sc-166912. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing membrane and cytoplasmic staining of squamous epithelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane and cytoplasmic staining of trophoblastic cells (B).

SELECT PRODUCT CITATION

- Kleene, R., et al. 2010. Functional consequences of the interactions among the neural cell adhesion molecule NCAM, the receptor tyrosine kinase TrkB, and the inwardly rectifying K⁺ channel KIR3.3. *J. Biol. Chem.* 285: 28968-28979.
- Buckingham, E.M., et al. 2016. Exocytosis of varicella-zoster virus virions involves a convergence of endosomal and autophagy pathways. *J. Virol.* 90: 8673-8685.
- Kim, S.B., et al. 2017. Caspase-8 controls the secretion of inflammatory lysyl-tRNA synthetase in exosomes from cancer cells. *J. Cell Biol.* 216: 2201-2216.
- Kane, M.S., et al. 2019. Endosomal trafficking defects in patient cells with KIAA1109 biallelic variants. *Genes Dis.* 6: 56-67.
- Reyes, M., et al. 2020. Nuclear accumulation of β -catenin is associated with endosomal sequestration of the destruction complex and increased activation of Rab 5 in oral dysplasia. *FASEB J.* 34: 4009-4025.
- Takeuchi, M., et al. 2021. Subcellular localization of glypican-5 is associated with dynamic motility of the human mesenchymal stem cell line U3DT. *PLoS ONE* 16: e0226538.
- Engvik, A.C., et al. 2021. Recruitment of polarity complexes and tight junction proteins to the site of apical bulk endocytosis. *Cell. Mol. Gastroenterol. Hepatol.* 12: 59-80.
- Isogawa, K., et al. 2021. Thioxothiazolidin derivative, 4-OST, inhibits melanogenesis by enhancing the specific recruitment of tyrosinase-containing vesicles to lysosome. *J. Cell. Biochem.* 122: 667-678.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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