SANTA CRUZ BIOTECHNOLOGY, INC.

Rab 11 (H-87): sc-9020

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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, RAB11B (human) mapping to 19p13.2; Rab11a (mouse) mapping to 9 C, Rab11b (mouse) mapping to 17 B1.

SOURCE

Rab 11 (H-87) is a rabbit polyclonal antibody raised against amino acids 130-216 of Rab 11 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Rab 11 (H-87) is recommended for detection of Rab 11A and, to a lesser extent, RAB 11B isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 11 (H-87) is also recommended for detection of Rab 11A and, to a lesser extent, RAB 11B isoforms in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Rab 11: 25 kDa.

Positive Controls: human platelet extract: sc-363773 or K-562 whole cell lysate: sc-2203.

RESEARCH USE

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

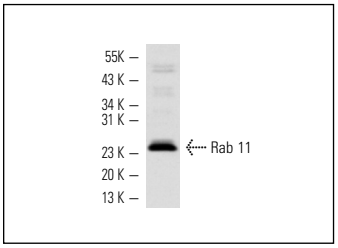
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

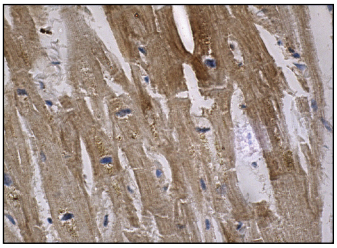
STORAGE

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

DATA



Rab 11 (H-87): sc-9020. Western blot analysis of Rab 11 expression in human platelet extract.



Rab 11 (H-87): sc-9020. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

1. Jones, C., et al. 2003. Normal sorting but defective endocytosis of the low density lipoprotein receptor in mice with autosomal recessive hypercholesterolemia. J. Biol. Chem. 278: 29024-29030.
2. Becker, K.P., et al. 2003. cPKC-dependent sequestration of membrane-recycling components in a subset of recycling endosomes. J. Biol. Chem. 278: 52747-52754.
3. Lallemand, D., et al. 2009. Merlin regulates transmembrane receptor accumulation and signaling at the plasma membrane in primary mouse Schwann cells and in human schwannomas. Oncogene 28: 854-865.
4. Hald, A., et al. 2009. Differential activation of spinal cord glial cells in murine models of neuropathic and cancer pain. Eur. J. Pain 13: 138-145.
5. Hald, A., et al. 2009. Cancer-induced bone loss and associated pain-related behavior is reduced by risedronate but not its phosphonocarboxylate analog NE-10790. Int. J. Cancer 125: 1177-1185.
6. Reid, H.M., et al. 2010. Interaction of the human prostacyclin receptor with Rab11: characterization of a novel Rab11 binding domain within α-helix 8 that is regulated by palmitoylation. J. Biol. Chem. 285: 18709-18726.
7. Su, L., et al. 2010. Differential effects of testosterone and TGF-β3 on endocytic vesicle-mediated protein trafficking events at the blood-testis barrier. Exp. Cell Res. 316: 2945-2960.
8. Gardner, L.A., et al. 2011. Rab11a and its binding partners regulate the recycling of the β1-adrenergic receptor. Cell. Signal. 23: 46-57.