SANTA CRUZ BIOTECHNOLOGY, INC.

Rab 12 (H-11): sc-515613

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies. Increasing data suggests an important role for Rab proteins in either endocytosis or in biosynthetic protein transport. The process of transporting newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves the movement of carrier vesicles and requires Rab protein function. Rab proteins are also an integral part of endocytic pathways. Rab 12 is a 244 amino acid protein that is anchored to the membrane of the golgi apparatus and belongs to the Rab family of GTPase proteins. Like other Rab proteins, Rab 12 is thought to play a role in protein transport and may participate in vesicular trafficking events.

REFERENCES

1. Elferink, L.A., et al. 1992. Rab15, a novel low molecular weight GTP-binding protein specifically expressed in rat brain. J. Biol. Chem. 267: 5768-5775.
2. Olkkonen, V.M., et al. 1993. Molecular cloning and subcellular localization of three GTP-binding proteins of the rab subfamily. J. Cell Sci. 106: 1249-1261.
3. Iida, H., et al. 1996. Identification of Rab12 as a secretory granule-associated small GTP-binding protein in atrial myocytes. Circ. Res. 78: 343-347.
4. Ishido, M. and Masuo, Y. 2004. Transcriptome of pituitary adenylate cyclase-activating polypeptide-differentiated PC12 cells. Regul. Pept. 123: 15-21.
5. Iida, H., et al. 2005. Identification of Rab12 as a vesicle-associated small GTPase highly expressed in Sertoli cells of rat testis. Mol. Reprod. Dev. 71: 178-185.

CHROMOSOMAL LOCATION

Genetic locus: RAB12 (human) mapping to 18p11.22; Rab12 (mouse) mapping to 17 E1.1.

SOURCE

Rab 12 (H-11) is a mouse monoclonal antibody raised against amino acids 126-244 mapping at the C-terminus of Rab 12 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rab 12 (H-11) is available conjugated to agarose (sc-515613 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515613 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515613 PE), fluorescein (sc-515613 FITC), Alexa Fluor® 488 (sc-515613 AF488), Alexa Fluor® 546 (sc-515613 AF546), Alexa Fluor® 594 (sc-515613 AF594) or Alexa Fluor® 647 (sc-515613 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515613 AF680) or Alexa Fluor® 790 (sc-515613 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Rab 12 (H-11) is recommended for detection of Rab 12 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rab 12 siRNA (h): sc-76311, Rab 12 siRNA (m): sc-152626, Rab 12 shRNA Plasmid (h): sc-76311-SH, Rab 12 shRNA Plasmid (m): sc-152626-SH, Rab 12 shRNA (h) Lentiviral Particles: sc-76311-V and Rab 12 shRNA (m) Lentiviral Particles: sc-152626-V.

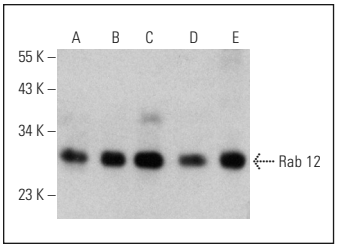
Molecular Weight of Rab 12: 27 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MDA-MB-231 cell lysate: sc-2232 or Raji whole cell lysate: sc-364236.

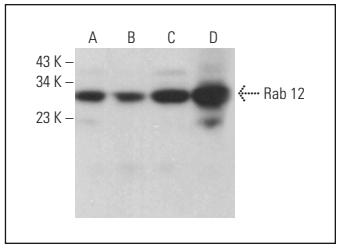
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Rab 12 (H-11): sc-515613. Western blot analysis of Rab 12 expression in HeLa (**A**), MDA-MB-231 (**B**), OVCAR-3 (**C**) and Raji (**D**) whole cell lysates and mouse cerebellum tissue extract (**E**).



Rab 12 (H-11): sc-515613. Western blot analysis of Rab 12 expression in HeLa (**A**), MDA-MB-231 (**B**) and Raji (**C**) whole cell lysates and mouse cerebellum tissue extract (**D**). Detection reagent used: m-IgGκ BP-HRP: sc-516102.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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