SANTA CRUZ BIOTECHNOLOGY, INC.

RASAL2 (B-11): sc-390605

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

RASAL2 (Ras protein activator like 2), also known as nGAP, is a Ras GTPase-activating protein. RAS proteins cycle between an active guanosine-triphosphate (GTP) bound form and an inactive, guanosine-diphosphate (GDP) bound form. GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. RASAL2 functions in the Ras/MAPK/ERK signaling pathway. It contains a C2 domain, a PH domain and a Ras-GAP domain. The gene encoding RASAL2 is located on chromosome 1 within the prostate cancer susceptibility locus. This suggests that a mutation or defect in RASAL2 is implicated in carcinogenesis. Two transcript variants exist for RASAL2 due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: RASAL2 (human) mapping to 1q25.2; Rasal2 (mouse) mapping to 1 H1.

SOURCE

RASAL2 (B-11) is a mouse monoclonal antibody raised against amino acids 1-48 mapping at the N-terminus of RASAL2 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.

RASAL2 (B-11) is available conjugated to agarose (sc-390605 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390605 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390605 PE), fluorescein (sc-390605 FITC), Alexa Fluor® 488 (sc-390605 AF488), Alexa Fluor® 546 (sc-390605 AF546), Alexa Fluor® 594 (sc-390605 AF594) or Alexa Fluor® 647 (sc-390605 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390605 AF680) or Alexa Fluor® 790 (sc-390605 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

RASAL2 (B-11) is recommended for detection of RASAL2 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).

Suitable for use as control antibody for RASAL2 siRNA (h): sc-62924, RASAL2 siRNA (m): sc-62925, RASAL2 shRNA Plasmid (h): sc-62924-SH, RASAL2 shRNA Plasmid (m): sc-62925-SH, RASAL2 shRNA (h) Lentiviral Particles: sc-62924-V and RASAL2 shRNA (m) Lentiviral Particles: sc-62925-V.

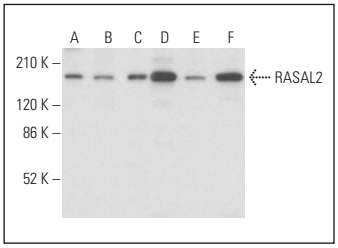
Molecular Weight of RASAL2: 129 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, A-10 cell lysate: sc-3806 or RAW 264.7 whole cell lysate: sc-2211.

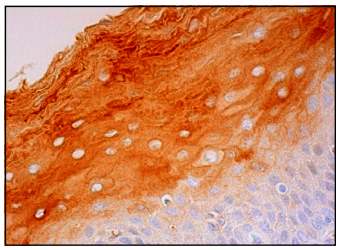
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



RASAL2 (B-11): sc-390605. Western blot analysis of RASAL2 expression in c4 (**A**), A-10 (**B**), RAW 264.7 (**C**), F9 (**D**), L6 (**E**) and BC_3H1 (**F**) whole cell lysates.



RASAL2 (B-11): sc-390605. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. Jia, Z., et al. 2017. Downregulation of RASAL2 promotes the proliferation, epithelial-mesenchymal transition and metastasis of colorectal cancer cells. Oncol. Lett. 13: 1379-1385.
2. Zhang, W., et al. 2019. IPO5 promotes the proliferation and tumourigenicity of colorectal cancer cells by mediating RASAL2 nuclear transportation. J. Exp. Clin. Cancer Res. 38: 296.
3. Yin, L., et al. 2019. Sulforaphane induces miR135b-5p and its target gene, RASAL2, thereby inhibiting the progression of pancreatic cancer. Mol. Ther. Oncolytics 14: 74-81.
4. Tailor, K., et al. 2021. RASAL2 suppresses the proliferative and invasive ability of PC3 prostate cancer cells. Oncotarget 12: 2489-2499.
5. Ding, H., et al. 2023. RASAL2 deficiency attenuates hepatic steatosis by promoting hepatic VLDL secretion via the AKT/TET1/MTTP axis. J. Clin. Transl. Hepatol. 11: 261-272.

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.