

RASSF3 (E-4): sc-376560

BACKGROUND

Ras is a small GTP-binding protein involved in many cellular processes, including proliferation, differentiation and apoptosis. Ras transmits signals of cell surface receptors by binding to a variety of effector molecules. In addition to the well characterized effectors Raf and PI 3-kinase, Ras also interacts with members of the RASSF family, including RASSF1, RASSF2, RASSF3, RASSF4 and Nore1. Members of the RASSF family contain a highly conserved Ras association domain (Ral GDS/AF-6 or RA) and function as Ras effectors/tumor suppressors. RASSF3 (Ras association domain family 3) is a ubiquitously expressed protein found in normal and cancerous tissues. RASSF3 contains an N-terminal RA domain and a coiled-coil SARAH domain. Three isoforms, namely RASSF3A, RASSF3B and RASSF3C, may exist for RASSF3 due to alternative splicing. RASSF3B and RASSF3C are shorter than RASSF3A and do not contain the RA and SARAH domain.

REFERENCES

- Tommasi, S., et al. 2002. RASSF3 and NORE: identification and cloning of two human homologues of the putative tumor suppressor gene RASSF1. *Oncogene* 21: 2713-2720.
- Hesson, L., et al. 2004. Frequent epigenetic inactivation of RASSF1A and BLU genes located within the critical 3p21.3 region in gliomas. *Oncogene* 23: 2408-2419.
- Eckfeld, K., et al. 2004. RASSF4/AD037 is a potential Ras effector/tumor suppressor of the RASSF family. *Cancer Res.* 64: 8688-8693.
- Levy, P., et al. 2004. Molecular profiling of malignant peripheral nerve sheath tumors associated with neurofibromatosis type 1, based on large-scale real-time RT-PCR. *Mol. Cancer* 3: 20.

CHROMOSOMAL LOCATION

Genetic locus: RASSF3 (human) mapping to 12q14.2; Rassf3 (mouse) mapping to 10 D2.

SOURCE

RASSF3 (E-4) is a mouse monoclonal antibody raised against amino acids 21-80 mapping near the N-terminus of RASSF3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RASSF3 (E-4) is available conjugated to agarose (sc-376560 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376560 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376560 PE), fluorescein (sc-376560 FITC), Alexa Fluor[®] 488 (sc-376560 AF488), Alexa Fluor[®] 546 (sc-376560 AF546), Alexa Fluor[®] 594 (sc-376560 AF594) or Alexa Fluor[®] 647 (sc-376560 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376560 AF680) or Alexa Fluor[®] 790 (sc-376560 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

RASSF3 (E-4) is recommended for detection of RASSF3 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 RASSF3 siRNA (h): sc-62926, RASSF3 siRNA (m): sc-62927, RASSF3 shRNA Plasmid (h): sc-62926-SH, RASSF3 shRNA Plasmid (m): sc-62927-SH, RASSF3 shRNA (h) Lentiviral Particles: sc-62926-V and RASSF3 shRNA (m) Lentiviral Particles: sc-62927-V.

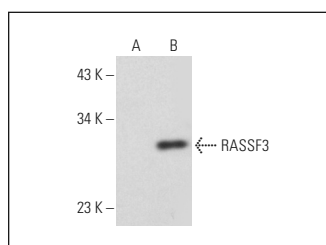
Molecular Weight of RASSF3: 29 kDa.

Positive Controls: RASSF3 (m): 293T Lysate: sc-122984.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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 BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



RASSF3 (E-4): sc-376560. Western blot analysis of RASSF3 expression in non-transfected: sc-117752 (A) and mouse RASSF3 transfected: sc-122984 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Guo, W., et al. 2016. Decreased expression and frequent promoter hypermethylation of RASSF2 and RASSF6 correlate with malignant progression and poor prognosis of gastric cardia adenocarcinoma. *Mol. Carcinog.* 55: 1655-1666.

STORAGE

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

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA