

RASSF2 (Y-17): sc-46476

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 a group of homologous, noncatalytic proteins composed of RASSF1, RASSF2, RASSF3, AD037 and Nore1. RASSF1 is a potential tumor suppressor gene that plays an important role in tumor pathogenesis. Nore1 binds to Ras in response to EGF or serum stimulation, but its function has yet to be determined. RASSF2 is a nuclear protein containing a Ras-associating domain and a SARAH domain. RASSF2 isoform A is inactivated in colorectal cancer cells by CpG island promoter hypermethylation.

REFERENCES

1. 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.
2. Eckfeld, K., et al. 2004. RASSF4/AD037 is a potential Ras effector/tumor suppressor of the RASSF family. *Cancer Res.* 64: 8688-8693.
3. Hesson, L.B., et al. 2005. CpG island promoter hypermethylation of a novel Ras-effector gene RASSF2A is an early event in colon carcinogenesis and correlates inversely with K-Ras mutations. *Oncogene* 24: 3987-3994.
4. Lambros, M.B., et al. 2005. Analysis of ovarian cancer cell lines using array-based comparative genomic hybridization. *J. Pathol.* 205: 29-40.
5. SWISS-PROT/TrEMBL (P50749). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>
6. <http://harvester.embl.de/harvester/P507/P50749.htm>

CHROMOSOMAL LOCATION

Genetic locus: RASSF2 (human) mapping to 20p13, RASSF4 (human) mapping to 10q11.21; Rassf2 (mouse) mapping to 2 F2, Rassf4 (mouse) mapping to 6 E3.

SOURCE

RASSF2 (Y-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RASSF2 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.

Blocking peptide available for competition studies, sc-46476 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

RASSF2 (Y-17) is recommended for detection of RASSF2 and, to a lesser extent, RASSF4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

RASSF2 (Y-17) is also recommended for detection of RASSF2 and, to a lesser extent, RASSF4 in additional species, including equine, canine, porcine and avian.

Molecular Weight of RASSF2: 38 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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