

# RASSF3 (N-18): sc-68226

## 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.
- 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.
- Lambros, M.B., et al. 2005. Analysis of ovarian cancer cell lines using array-based comparative genomic hybridization. *J. Pathol.* 205: 29-40.

## CHROMOSOMAL LOCATION

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

## SOURCE

RASSF3 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RASSF3 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-68226 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

RASSF3 (N-18) is recommended for detection of RASSF3 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).

RASSF3 (N-18) is also recommended for detection of RASSF3 in additional species, including bovine.

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.

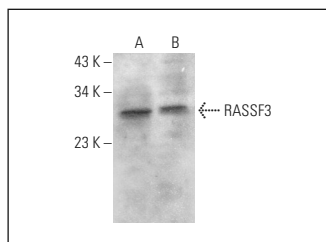
Molecular Weight of RASSF3: 29 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

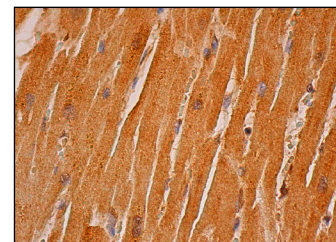
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



RASSF3 (N-18): sc-68226. Western blot analysis of RASSF3 expression in Jurkat (A) and K-562 (B) whole cell lysates.



RASSF3 (N-18): sc-68226. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

## STORAGE

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