

RASSF1 (H-65): sc-28563

BACKGROUND

Activated Ras proteins may induce senescence, apoptosis and terminal differentiation, though they are often associated with stimulating growth and transformation. The Ras association domain family 1 (RASSF1) gene is located at the human lung tumor suppressor locus 3p21.31. It consists of two major alternative transcripts, RASSF1A and RASSF1C. RASSF1 binds Ras in a GTP-dependent manner, both *in vivo* and *in vitro*. Activated Ras enhances and dominant negative Ras inhibits cell death induced by transient transfection of RASSF1 into 293-T cells, suggesting that RASSF1 tumor suppressor may serve as a Ras effector that mediates the apoptotic effects of oncogenic Ras. RASSF1A undergoes epigenetic inactivation in lung and breast cancers through hypermethylation of the CpG island of its promoter region. Mutant RASSF1A has significantly reduced growth suppression activity. Thus, RASSF1A is a potential tumor suppressor gene that plays an important role in a variety of tumor pathogenesis.

REFERENCES

- Vos, M.D., et al. 2000. Ras uses the novel tumor suppressor RASSF1 as an effector to mediate apoptosis. *J. Biol. Chem.* 275: 35669-35672.
- Dammann, R., et al. 2000. Epigenetic inactivation of a RAS association domain family protein from the lung tumour suppressor locus 3p21.3. *Nat. Genet.* 25: 315-319.

CHROMOSOMAL LOCATION

Genetic locus: RASSF1 (human) mapping to 3p21.31; RASSF1 (mouse) mapping to 9 F1.

SOURCE

RASSF1 (H-65) is a rabbit polyclonal antibody raised against amino acids 1-65 mapping at the N-terminus of RASSF1 isoform A 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.

APPLICATIONS

RASSF1 (H-65) is recommended for detection of RASSF1A, RASSF1D, RASSF1E, RASSF1F and RASSF1G 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).

RASSF1 (H-65) is also recommended for detection of RASSF1A, RASSF1D, RASSF1E, RASSF1F and RASSF1G in additional species, including equine.

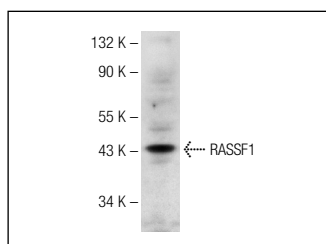
Molecular Weight of RASSF1: 40 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285 or HeLa whole cell lysate: sc-2200.

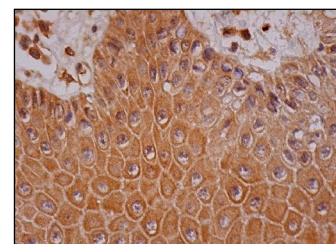
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



RASSF1 (H-65): sc-28563. Western blot analysis of RASSF1 expression in MIA PaCa-2 whole cell lysate.



RASSF1 (H-65): sc-28563. Immunoperoxidase staining of formalin fixed, paraffin-embedded human oral mucosa tissue showing cytoplasmic staining of squamous epithelial cells.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **RASSF1 (3F3): sc-58470**, our highly recommended monoclonal alternative to RASSF1 (H-65).