

RASSF7 (C-6): sc-374431

BACKGROUND

Activated Ras proteins may induce senescence, apoptosis and terminal differentiation, though they are often associated with stimulating growth and transformation. Members of the RASSF family contain a highly conserved Ras association domain (RalGDS/AF-6 or RA) and function as Ras effectors/tumor suppressors. RASSF7 (ras association domain-containing protein 7), also designated HRAS1-related cluster protein 1, is a 373 amino acid protein that localizes to the centrosome. RASSF7, RASSF8, RASSF9 and RASSF10 are four evolutionary conserved proteins that are collectively known as the N-terminal RASSF family. Expressed in skin, neural tube and eye, RASSF7 is believed to play an essential role in mitosis. Further supporting its mitotic role, knockdown of *Xenopus* RASSF7 has been shown to influence cell failure to form mitotic spindle and also cause nuclear breakdown and apoptosis. As a result of alternative splicing events, there are three characterized isoforms of RASSF7 that primarily differ in the C-terminus.

REFERENCES

- Weitzel, J.N., et al. 1992. The HRAS1 gene cluster: two upstream regions recognizing transcripts and a third encoding a gene with a leucine zipper domain. *Genomics* 14: 309-319.
- Weitzel, J.N., et al. 1994. A single P1 clone bearing three genes from human chromosome 11p15.5: HRC1, HRAS1, and RNH. *Genet. Anal. Tech. Appl.* 11: 165-170.

CHROMOSOMAL LOCATION

Genetic locus: RASSF7 (human) mapping to 11p15.5; Rassf7 (mouse) mapping to 7 F5.

SOURCE

RASSF7 (C-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 157-189 within an internal region of RASSF7 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RASSF7 (C-6) is available conjugated to agarose (sc-374431 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374431 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374431 PE), fluorescein (sc-374431 FITC), Alexa Fluor® 488 (sc-374431 AF488), Alexa Fluor® 546 (sc-374431 AF546), Alexa Fluor® 594 (sc-374431 AF594) or Alexa Fluor® 647 (sc-374431 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374431 AF680) or Alexa Fluor® 790 (sc-374431 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374431 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

RASSF7 (C-6) is recommended for detection of RASSF7 isoforms 1 and 2 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 RASSF7 siRNA (h): sc-96878, RASSF7 siRNA (m): sc-152716, RASSF7 shRNA Plasmid (h): sc-96878-SH, RASSF7 shRNA Plasmid (m): sc-152716-SH, RASSF7 shRNA (h) Lentiviral Particles: sc-96878-V and RASSF7 shRNA (m) Lentiviral Particles: sc-152716-V.

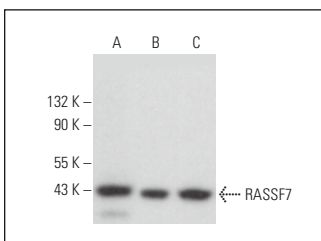
Molecular Weight of RASSF7: 40 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, 3611-RF whole cell lysate: sc-2215 or Raji whole cell lysate: sc-364236.

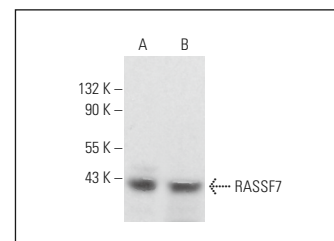
RECOMMENDED SUPPORT REAGENTS

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.

DATA



RASSF7 (C-6): sc-374431. Western blot analysis of RASSF7 expression in Jurkat (A), NIH/3T3 (B) and TK-1 (C) whole cell lysates.



RASSF7 (C-6): sc-374431. Western blot analysis of RASSF7 expression in Raji (A) and 3611-RF (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Zheng, X., et al. 2017. The coiled-coil domain of oncogene RASSF7 inhibits hippo signaling and promotes non-small cell lung cancer. *Oncotarget* 8: 78734-78748.

STORAGE

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

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