SANTA CRUZ BIOTECHNOLOGY, INC.

RHOBTB1 (I-19): sc-102084

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The Power to Question

BACKGROUND

The Rho subfamily of Ras-related GTPases controls multiple aspects of cell function, including cytoskeletal rearrangement, nuclear signaling and cell growth. RHOBTB1 (Rho-related BTB domain-containing protein 1) and RHOBTB3 (Rho-related BTB domain-containing protein 3) each contain two BTB (POZ) domains and belong to the RhoBTB subfamily of Rho GTPases. Members of the RhoBTB subfamily are evolutionarily conserved and are characterized by a proline-rich region, a GTPase domain and two tandem BTB repeats. While both RHOBTB1 and RHOBTB3 are expressed ubiquitously, RHOBTB1 is found at high levels in placenta, stomach, testis, kidney and skeletal muscle, whereas RHOBTB3 is found at high levels in neural and cardiac tissues. RHOBTB1 is thought to play a role in GTPase-mediated signaling and may participate in organization of the Actin filament system. Additionally, RHOBTB1 expression is decreased in head and neck carcinomas, suggesting a possible role for RHOBTB1 as a tumor suppressor.

REFERENCES

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4. Vlahou, G. and Rivero, F. 2006. Rho GTPase signaling in *Dictyostelium discoideum*: insights from the genome. Eur. J. Cell Biol. 85: 947-959.
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CHROMOSOMAL LOCATION

Genetic locus: RHOBTB1 (human) mapping to 10q21.2; Rhobtb1 (mouse) mapping to 10 B5.3.

STORAGE

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

SOURCE

RHOBTB1 (I-19) is a purified rabbit polyclonal antibody raised against RHOBTB1 of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

RHOBTB1 (I-19) is recommended for detection of RHOBTB1 of mouse, rat, human and dog 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).

Suitable for use as control antibody for RHOBTB1 siRNA (h): sc-90810, RHOBTB1 siRNA (m): sc-152859, RHOBTB1 shRNA Plasmid (h): sc-90810-SH, RHOBTB1 shRNA Plasmid (m): sc-152859-SH, RHOBTB1 shRNA (h) Lentiviral Particles: sc-90810-V and RHOBTB1 shRNA (m) Lentiviral Particles: sc-152859-V.

Molecular Weight of RHOBTB1: 79 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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.

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.