SANTA CRUZ BIOTECHNOLOGY, INC.

Rock-1 (D-18): sc-87350

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Rho, the Ras-related small GTPase, is responsible for the regulation of Actin-based cytoskeletal structures, including stress fibers, focal adhesions and the contractile ring apparatus. Rho proteins function as molecular switches that are able to turn cytokinesis on and off. Although little is known about signaling downstream of Rho, a host of putative Rho effector proteins have been described and include the Rho-activated serine/threonine kinases Rock-1 and Rock-2 (also referred to as Roka, for Rho-associated coil-containing protein kinase). Rock-1 and Rock-2 share a structural similarity with myotonic dystrophy kinase.

REFERENCES

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3. Amano, M., et al. 1996. Identification of a putative target for Rho as the serine-threonine kinase protein kinase N. Science 271: 648-650.
4. Mukai, H., et al. 1996. PKN associates and phosphorylates the head-rod domain of neurofilament protein. J. Biol. Chem. 271: 9816-9822.
5. Shibata, H., et al. 1996. Characterization of the interaction between RhoA and the amino-terminal region of PKN. FEBS Lett. 385: 221-224.
6. Kitagawa, M., et al. 1996. The role of the unique motifs in the amino-terminal region of PKN on its enzymatic activity. Biochem. Biophys. Res. Commun. 220: 963-968.
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8. Ongusaha, P.P., et al. 2008. Identification of ROCK1 as an upstream activator of the JIP-3 to JNK signaling axis in response to UVB damage. Sci. Signal. 1: ra14.
9. Kroll, J., et al. 2009. Inhibition of Rho-dependent kinases ROCK I/II activates VEGF-driven retinal neovascularization and sprouting angiogenesis. Am. J. Physiol. Heart Circ. Physiol. 296: H893-H899.

CHROMOSOMAL LOCATION

Genetic locus: ROCK1 (human) mapping to18q11.1.

SOURCE

Rock-1 (D-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of p160 Rock-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87350 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rock-1 (D-18) is recommended for detection of Rock-1 of 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).

Rock-1 (D-18) is also recommended for detection of Rock-1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Rock-1 siRNA (h): sc-29473, Rock-1 shRNA Plasmid (h): sc-29473-SH and Rock-1 shRNA (h) Lentiviral Particles: sc-29473-V.

Molecular Weight of Rock-1: 21 kDa.

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) 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.

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.