

Rock-2 (D-2): sc-365275

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, including rhotillin, Rhotekin, citron and the serine/threonine kinase, protein kinase N. Two additional Rho-activated serine/threonine kinases have been described, designated Rock-1 and Rock-2 (also referred to as Roca) for Rho-associated coil-containing protein kinase. Rock-1 and Rock-2 share a structural similarity with myotonic dystrophy kinase.

CHROMOSOMAL LOCATION

Genetic locus: ROCK2 (human) mapping to 2p25.1; Rock2 (mouse) mapping to 12 A1.1.

SOURCE

Rock-2 (D-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1353-1379 at the C-terminus of Rock-2 of rat 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.

Blocking peptide available for competition studies, sc-365275 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Rock-2 (D-2) is recommended for detection of Rock-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).

Rock-2 (D-2) is also recommended for detection of Rock-2 in additional species, including canine and bovine.

Suitable for use as control antibody for Rock-2 siRNA (h): sc-29474, Rock-2 siRNA (m): sc-36433, Rock-2 siRNA (r): sc-108088, Rock-2 shRNA Plasmid (h): sc-29474-SH, Rock-2 shRNA Plasmid (m): sc-36433-SH, Rock-2 shRNA Plasmid (r): sc-108088-SH, Rock-2 shRNA (h) Lentiviral Particles: sc-29474-V, Rock-2 shRNA (m) Lentiviral Particles: sc-36433-V and Rock-2 shRNA (r) Lentiviral Particles: sc-108088-V.

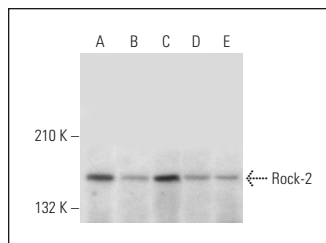
Molecular Weight of Rock-2: 160 kDa.

Positive Controls: Sol8 cell lysate: sc-2249, HeLa whole cell lysate: sc-2200 or Y79 cell lysate: sc-2240.

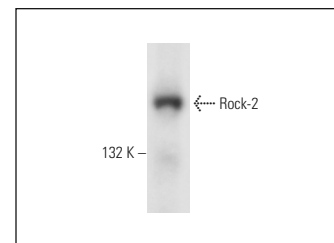
RECOMMENDED SUPPORT REAGENTS

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



Rock-2 (D-2): sc-365275. Western blot analysis of Rock-2 expression in HeLa (A), A-673 (B), Y79 (C), MCF7 (D) and Jurkat (E) whole cell lysates.



Rock-2 (D-2): sc-365275. Western blot analysis of Rock-2 expression in Sol8 whole cell lysate.

SELECT PRODUCT CITATIONS

- Semiz, A.T., et al. 2020. Hydrogen sulfide dilates the isolated retinal artery mainly via the activation of Myosin phosphatase. *Life Sci.* 255: 117834.
- Yoon, Y., et al. 2020. PS1 FAD mutants decrease ephrinB2-regulated angiogenic functions, ischemia-induced brain neovascularization and neuronal survival. *Mol. Psychiatry* 26: 1996-2012.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **Rock-2 (D-11): sc-398519** for Rock-2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.