

Rhotekin (C-19): sc-6219

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 rhophilin, 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 Roka) for Rho-associated coil-containing protein kinase. Rock-1 and Rock-2 share a structural similarity with myotonic dystrophy kinase.

REFERENCES

1. Kitagawa, M., et al. 1995. Purification and characterization of a fatty acid-activated protein kinase (PKN) from rat testis. *Biochem. J.* 310: 657-664.
2. Leung, T., et al. 1995. A novel serine/threonine kinase binding the Ras-related RhoA GTPase which translocates the kinase to peripheral membranes. *J. Biol. Chem.* 270: 29051-29054.
3. Watanabe, G., et al. 1996. Protein kinase N (PKN) and PKN-related protein rhophilin as targets of small GTPase Rho. *Science* 271: 645-648.
4. Amano, M., et al. 1996. Identification of a putative target for Rho as the serine-threonine kinase protein kinase N. *Science* 271: 648-650.
5. Mukai, H., et al. 1996. PKN associates and phosphorylates the head-rod domain of neurofilament protein. *J. Biol. Chem.* 271: 9816-9822.
6. Shibata, H., et al. 1996. Characterization of the interaction between RhoA and the amino-terminal region of PKN. *FEBS Lett.* 385: 221-224.

CHROMOSOMAL LOCATION

Genetic locus: RTKN (human) mapping to 2p13.1; Rtkn (mouse) mapping to 6 C3.

SOURCE

Rhotekin (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Rhotekin of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6219 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

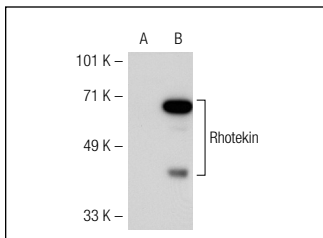
Rhotekin (C-19) is recommended for detection of rhotekin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rhotekin siRNA (h): sc-39223, Rhotekin siRNA (m): sc-39224, Rhotekin shRNA Plasmid (h): sc-39223-SH, Rhotekin shRNA Plasmid (m): sc-39224-SH, Rhotekin shRNA (h) Lentiviral Particles: sc-39223-V and Rhotekin shRNA (m) Lentiviral Particles: sc-39224-V.

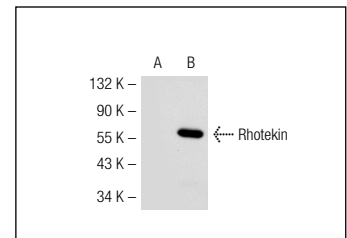
Molecular Weight of Rhotekin: 62 kDa.

Positive Controls: Rhotekin (h): 293T Lysate: sc-112761, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

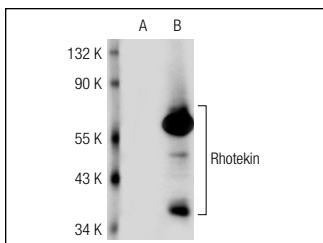
DATA



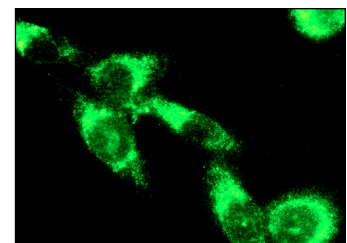
Rhotekin (C-19): sc-6219. Western blot analysis of Rhotekin expression in non-transfected: sc-117752 (A) and human Rhotekin transfected: sc-112761 (B) 293T whole cell lysates.



Rhotekin (C-19): sc-6219. Western blot analysis of Rhotekin expression in non-transfected: sc-117752 (A) and mouse Rhotekin transfected: sc-123129 (B) 293T whole cell lysates.



Rhotekin (C-19): sc-6219. Western blot analysis of Rhotekin expression in non-transfected: sc-117752 (A) and mouse Rhotekin transfected: sc-123128 (B) 293T whole cell lysates.



Rhotekin (C-19): sc-6219. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **Rhotekin (B-4): sc-393833** or **Rhotekin (AA-18): sc-100426**, our highly recommended monoclonal alternatives to Rhotekin (C-19).