

rhophilin (h): 293T Lysate: sc-114163

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 act as molecular switches which are able to turn cytokinesis on and off. Although little is known about signaling downstream of Rho, several proteins have been implicated as Rho effectors. Protein kinase N (PKN) is a fatty acid-activated serine/threonine kinase whose catalytic domain exhibits homology with that of the PKC family. PKN associates with Rho via its amino-terminus, is activated in a GTP-dependent manner and phosphorylates the head-rod domain of neurofilament proteins. A second protein, rhophilin, exhibits 40% sequence identity with the amino-terminal Rho binding domain. The enzymatic activity of rhophilin has not been demonstrated and it is possible that it acts through the recruitment of cytoskeletal components that initiate a kinase signaling cascade. Citron interacts specifically with active Rho and Rac 1 but not Cdc42. Citron exhibits a distinctive protein organization and little homology with the Rho binding domains of PKN and rhophilin.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RHPN1 (human) mapping to 8q24.3.

RESEARCH USE

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

PRODUCT

rhophilin (h): 293T Lysate represents a lysate of human rhophilin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

rhophilin (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive rhophilin antibodies. Recommended use: 10-20 µl per lane.

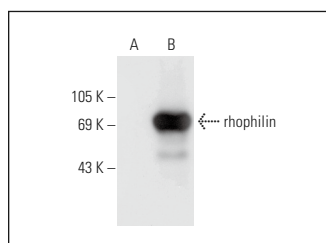
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

rhophilin (F-7): sc-166302 is recommended as a positive control antibody for Western Blot analysis of enhanced human rhophilin expression in rhophilin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



rhophilin (F-7): sc-166302. Western blot analysis of rhophilin expression in non-transfected: sc-117752 (A) and human rhophilin transfected: sc-114163 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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