

Rho D (H-50): sc-50388

BACKGROUND

Upon activation, the small GTPase Rho D (also designated RhoHP1 and ARHD) contributes to rearrangement of the Actin cytoskeleton and cell surface and also governs endosome motility and distribution. The effects of Rho D antagonize those of its family member, Rho A, by disassembling Actin stress fibers normally enhanced by Rho A. Additionally, Rho D disengages focal adhesions, resulting in retardation of cell migration. Accordingly, transfection of a constitutively active form of Rho D (designated Rho D G26V) reverses the invasive phenotype of G protein α (olf) induced cells, implying the possibility of a therapeutic use for activated Rho D in counteracting tumor metastasis.

REFERENCES

1. Paradis G, Bazin R, and Lemieux R. 1986. Protective effect of the membrane skeleton on the immunologic reactivity of the human red cell Rho(D) antigen. *J Immunol.* 137: 240-244.
2. Ruiz-Argüelles, G.J., Apreza-Molina, M.G., Pérez-Romano, B. and Ruiz-Argüelles, A. 1993. The infusion of anti-RhO-(D) opsonized erythrocytes may be useful in the treatment of patients, splenectomized or not, with chronic, refractory autoimmune thrombocytopenic purpura—a prospective study. *Am. J. Hematol.* 43: 72-73.
3. Mohandas, K., Najfield, V., Gilbert, H., Azar, P. and Skerrett, D. 1994. Loss and reappearance of Rho(D) antigen on the red blood cells of an individual with acute myelogenous leukemia. *Immunohematology* 10: 134-135.
4. Murphy, C., Saffrich, R., Grummt, M., Gournier, H., Rybin, V., Rubino, M., Auvinen, P., Lutcke, A., Parton, R.G. and Zerial, M. 1996. Endosome dynamics regulated by a Rho protein. *Nature* 384: 427-432.
5. Shimizu, F., Watanabe, T.K., Okuno, S., Omori, Y., Fujiwara, T, Takahashi, E. and Nakamura, Y. 1997. Isolation of a novel human cDNA (RhoHP1) homologous to Rho genes. *Biochim. Biophys. Acta* 1351: 13-16.

CHROMOSOMAL LOCATION

Genetic locus: RHOD (human) mapping to 11q13.2; Rhod (mouse) mapping to 19 A.

SOURCE

Rho D (H-50) is a rabbit polyclonal antibody raised against amino acids 81-130 mapping within an internal region of Rho D of human origin.

PRODUCT

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

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.

APPLICATIONS

Rho D (H-50) is recommended for detection of Rho D of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Rho D (H-50) is also recommended for detection of Rho D in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Rho D siRNA (h): sc-60032, Rho D siRNA (m): sc-60033, Rho D shRNA Plasmid (h): sc-60032-SH, Rho D shRNA Plasmid (m): sc-60033-SH, Rho D shRNA (h) Lentiviral Particles: sc-60032-V and Rho D shRNA (m) Lentiviral Particles: sc-60033-V.

Molecular Weight of Rho D: 23 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) 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.

PROTOCOLS

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



Try **Rho D (H-6): sc-365241** or **Rho D (H-1): sc-376340**, our highly recommended monoclonal alternatives to Rho D (H-50).