

Rho D (H-6): sc-365241

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 $G_{\alpha_{olf}}$ induced cells, implying the possibility of a therapeutic use for activated Rho D in counteracting tumor metastasis.

REFERENCES

1. Paradis, G., et al. 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., et al. 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., et al. 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., et al. 1996. Endosome dynamics regulated by a Rho protein. *Nature* 384: 427-432.
5. Shimizu, F., et al. 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.

SOURCE

Rho D (H-6) is a mouse monoclonal 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_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rho D (H-6) is available conjugated to agarose (sc-365241 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365241 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365241 PE), fluorescein (sc-365241 FITC), Alexa Fluor® 488 (sc-365241 AF488), Alexa Fluor® 546 (sc-365241 AF546), Alexa Fluor® 594 (sc-365241 AF594) or Alexa Fluor® 647 (sc-365241 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365241 AF680) or Alexa Fluor® 790 (sc-365241 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

Rho D (H-6) is recommended for detection of Rho D of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 Rho D siRNA (h): sc-60032, Rho D shRNA Plasmid (h): sc-60032-SH and Rho D shRNA (h) Lentiviral Particles: sc-60032-V.

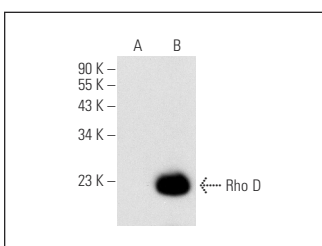
Molecular Weight of Rho D: 23 kDa.

Positive Controls: Rho D (h): 293 Lysate: sc-110628.

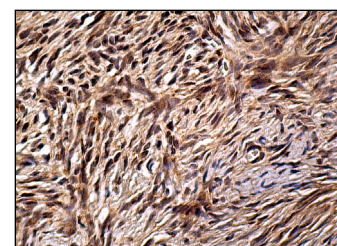
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Rho D (H-6): sc-365241. Western blot analysis of Rho D expression in non-transfected: sc-110760 (A) and human Rho D transfected: sc-110628 (B) 293 whole cell lysates.



Rho D (H-6): sc-365241. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic staining of ovarian stroma cells.

SELECT PRODUCT CITATIONS

1. Xu, L., et al. 2017. Effects of CASZ1 on bronchopulmonary development of neonatal rats. *Exp. Ther. Med.* 14: 6243-6246.
2. Truong, D., et al. 2018. *Salmonella* exploits host Rho GTPase signalling pathways through the phosphatase activity of SopB. *Cell. Microbiol.* 20: e12938.

STORAGE

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