

Rho 7 (H-107): sc-33543

BACKGROUND

The Ras p21 family of guanine nucleotide proteins has been widely studied in view of its apparent role in signal transduction pathways and high frequency of mutations in human malignancies. It is now clear, however, that the Ras proteins (H-, K- and N-Ras p21) are members of a much larger superfamily of related proteins. Six members of this family, Rap 1A, Rap 1B, Rap 2, R-Ras, Ral A and Ral B, exhibit approximately 50% amino acid homology to Ras. The five mammalian Rho proteins (Rho A, B, C, 7 and 8) are approximately 30% homologous to Ras and are expressed in a wide range of cell types. Both Ras p21 and Rho p21, as well as other members of the Ras superfamily, contain a carboxy terminal CAAX sequence (C, cysteine; A, aliphatic amino acid; X, any amino acid) which in the case of Ras has been shown to be essential for correct localization and function.

REFERENCES

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2. Yeramian, P., et al. 1987. Nucleotide sequence of human Rho cDNA clone 12. *Nucleic Acids Res.* 15: 189.
3. Barbacid, M. 1987. Ras genes. *Annu. Rev. Biochem.* 56: 779-827.
4. Olofsson, B., et al. 1988. Expression of the Ras-related Ral A, Rho 12 and Rab genes in adult mouse tissues. *Oncogene* 3: 231-234.
5. Chardin, P. 1988. The Ras superfamily proteins. *Biochimie* 70: 865-868.
6. Morris, J.D.M., et al. 1989. Scrape-loading of Swiss 3T3 cells with Ras protein rapidly activates protein kinase C in the absence of phospholipase hydrolysis. *Oncogene* 4: 27-31.
7. Garrett, M.D., et al. 1989. Identification of distinct cytoplasmic targets for Ras/R-Ras and Rho regulatory proteins. *J. Biol. Chem.* 264: 10-13.
8. Adamson, P., et al. 1992. Post-translational modifications of p21Rho proteins. *J. Biol. Chem.* 267: 20033-20038.

CHROMOSOMAL LOCATION

Genetic locus: RND2 (human) mapping to 17q21.31; Rnd2 (mouse) mapping to 11 D.

SOURCE

Rho 7 (H-107) is a rabbit polyclonal antibody raised against amino acids 121-227 mapping at the C-terminus of Rho 7 of human origin.

PRODUCT

Each vial contains 200 µg 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 7 (H-107) is recommended for detection of Rho 7 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).

Rho 7 (H-107) is also recommended for detection of Rho 7 in additional species, including equine, canine, bovine and porcine.

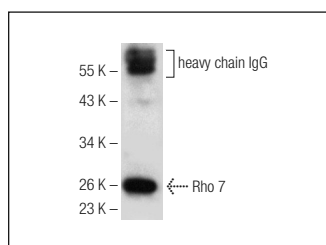
Suitable for use as control antibody for Rho 7 siRNA (h): sc-41879, Rho 7 siRNA (m): sc-41880, Rho 7 shRNA Plasmid (h): sc-41879-SH, Rho 7 shRNA Plasmid (m): sc-41880-SH, Rho 7 shRNA (h) Lentiviral Particles: sc-41879-V and Rho 7 shRNA (m) Lentiviral Particles: sc-41880-V.

Positive Controls: human testis extract: sc-363781.

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.

DATA



Rho 7 (H-107): sc-33543. Western blot analysis of Rho 7 expression in human testis tissue extract.

SELECT PRODUCT CITATIONS

1. Pacary, E., et al. 2011. Proneural transcription factors regulate different steps of cortical neuron migration through Rnd-mediated inhibition of RhoA signaling. *Neuron* 69: 1069-1084.

PROTOCOLS

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