

# Rho A/B/C (H-70): sc-28565

## 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

1. Madaule, P. and Axel, R. 1985. A novel Ras-related gene family. *Cell* 41: 31-40.
2. Barbacid, M. 1987. Ras genes. *Annu. Rev. Biochem.* 56: 779-827.
3. Yeramian, P., et al. 1987. Nucleotide sequence of human Rho cDNA clone 12. *Nucleic Acids Res.* 15: 189.
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.

## SOURCE

Rho A/B/C (H-70) is a rabbit polyclonal antibody raised against amino acids 124-193 mapping at the C-terminus of Rho A 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.

## APPLICATIONS

Rho A/B/C (H-70) is recommended for detection of Rho A, Rho C and, to a lesser extent, Rho B 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 A/B/C (H-70) is also recommended for detection of Rho A, Rho C and, to a lesser extent Rho B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Rho A/B/C siRNA (h): sc-44076, Rho A/B/C shRNA Plasmid (h): sc-44076-SH and Rho A/B/C shRNA (h) Lentiviral Particles: sc-44076-V.

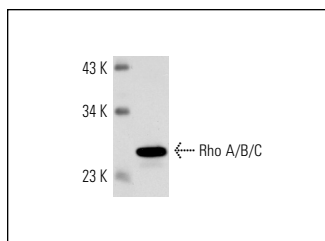
Molecular Weight of Rho A/B/C: 22-25 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, PC-12 cell lysate: sc-2250 or HL-60 whole cell lysate: sc-2209.

## 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 A/B/C (H-70): sc-28565. Western blot analysis of Rho A, Rho B and Rho C expression in PC-12 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Amine, A., et al. 2009. Novel anti-metastatic action of cidofovir mediated by inhibition of E6/E7, CXCR4 and Rho/ROCK signaling in HPV tumor cells. *PLoS ONE* 4: e5018.
2. Monceau, V., et al. 2010. Modulation of the Rho/ROCK pathway in heart and lung after thorax irradiation reveals targets to improve normal tissue toxicity. *Curr. Drug Targets* 11: 1395-1404.
3. Hong, I.K., et al. 2012. Tetraspanin CD151 stimulates adhesion-dependent activation of Ras, Rac, and Cdc42 by facilitating molecular association between β1 integrins and small GTPases. *J. Biol. Chem.* 287: 32027-32039.

## 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.



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Try **Rho A (26C4): sc-418** or **Rho B (C-5): sc-8048**, our highly recommended monoclonal alternatives to Rho A/B/C (H-70). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Rho A (26C4): sc-418**.