SANTA CRUZ BIOTECHNOLOGY, INC.

Rho B (m): 293T Lysate: sc-123117

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, G, 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 which, in the case of Ras, has been shown to be essential for correct localization and function.

REFERENCES

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2. Liu, A., et al. 2001. Rho B is required to mediate apoptosis in neoplastically transformed cells after DNA damage. Proc. Natl. Acad. Sci. USA 98: 6192-6197.
3. Ader, I., et al. 2002. Rho B controls the 24 kDa FGF-2-induced radioresistance in HeLa cells by preventing post-mitotic cell death. Oncogene 21: 5998-6006.
4. Sandilands, E., et al. 2004. RhoB and Actin polymerization coordinate Src activation with endosome-mediated delivery to the membrane. Dev. Cell 7: 855-869.
5. Wheeler, A.P., et al. 2004. Why three Rho proteins? Rho A, Rho B, Rho C, and cell motility. Exp. Cell Res. 301: 43-49.
6. Jiang, K., et al. 2004. Akt mediates Ras downregulation of Rho B, a suppressor of transformation, invasion, and metastasis. Mol. Cell. Biol. 24: 5565-5576.
7. Jiang, K., et al. 2004. EGFR, ErbB-2 and Ras but not Src suppress Rho B expression while ectopic expression of Rho B antagonizes oncogene-mediated transformation. Oncogene 23: 1136-1145.
8. Chauhan, S., et al. 2004. Androgen control of cell proliferation and cytoskeletal reorganization in human fibrosarcoma cells: role of Rho B signaling. J. Biol. Chem. 279: 937-944.

CHROMOSOMAL LOCATION

Genetic locus: Rhob (mouse) mapping to 12 A1.1.

PRODUCT

Rho B (m): 293T Lysate represents a lysate of mouse Rho B transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

Rho B (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Rho B antibodies. Recommended use: 10-20 µl per lane.

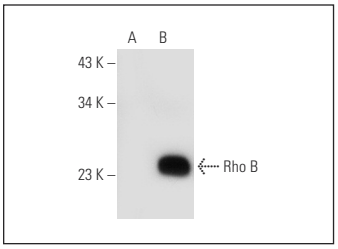
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Rho B (C-5): sc-8048 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Rho B expression in Rho B 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



Rho B (C-5): sc-8048. Western blot analysis of Rho B expression in non-transfected 293T: sc-117752 (**A**) and mouse Rho B transfected 293T: sc-123117 (**B**) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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