Rho B (C-5): sc-8048

**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, RalA and RalB, exhibit approximately 50% amino acid homology to Ras. The five mammalian Ras proteins (Rho A, B, C, and D) 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**


**CHROMOSOMAL LOCATION**

Genetic locus: RHOB (human) mapping to 2p24.1; Rhob (mouse) mapping to 12 A1.1.

**SOURCE**

Rho B (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 115-139 within an internal region of Rho B of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rho B (C-5) is available conjugated to agarose (sc-8048 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8048 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8048 PE), fluorescein (sc-8048 FITC), Alexa Fluor® 488 (sc-8048 AF488), Alexa Fluor® 546 (sc-8048 AF546), Alexa Fluor® 568 (sc-8048 AF568) or Alexa Fluor® 647 (sc-8048 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-8048 AF680) or Alexa Fluor® 790 (sc-8048 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-8048 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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**STORAGE**

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

**APPLICATIONS**

Rho B (C-5) is recommended for detection of Rho B p21 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), 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).

Rho B (C-5) is also recommended for detection of Rho B p21 in additional species, including equine, canine, bovine and porcine.


Molecular Weight of Rho B: 25 kDa.

Positive Controls: Rho B (m): 293T Lysate: sc-123117, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

**DATA**

Rho B (C-5): sc-8048. Western blot analysis of Rho B expression in non-transfected 293T: sc-117512(A) and mouse Rho B transfected 293T: sc-123117(B) whole cell lysates.

Rho B (C-5): sc-8048. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cell (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cell and cells in molecular layer (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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