

Ral B (C-8): sc-390108

BACKGROUND

Ral A and Ral B constitute a distinct subfamily of Ras-related GTPases (i.e., GDP/GTP binding proteins). Ral proteins are activated by a unique nucleotide exchange factor, Ral GDS, and deactivated by a distinct GTPase-activating protein. Unlike Ras proteins, Ral A and Ral B fail to induce transformed foci when activated variants are expressed in various recipient cells. A potential downstream target of Ral, designated Ral BP-1, has been shown to contain a Rho-GTPase-activating domain. This Rho-GTPase-activating domain interacts preferentially with the Rho family member Cdc42. A Ras/Ral signaling pathway has been reported to mediate phospholipase D (PLD) activation by v-Src, thus indicating PLD as another downstream target of Ral A.

REFERENCES

1. Wildey, G.M., et al. 1993. Isolation of cDNA clones and tissue expression of rat Ral A and Ral B GTP-binding proteins. *Biochem. Biophys. Res. Commun.* 194: 552-559.
2. Hofer, F., et al. 1994. Activated Ras interacts with the Ral guanine nucleotide dissociation stimulator. *Proc. Natl. Acad. Sci. USA* 91: 11089-11093.
3. Spaargaren, M. and Bischoff, J.R. 1994. Identification of the guanine nucleotide dissociation stimulator for Ral as a putative effector molecule of R-Ras, H-Ras, K-Ras, and Rap. *Proc. Natl. Acad. Sci. USA* 91: 12609-12613.
4. Jiang, H., et al. 1995. Involvement of Ral GTPase in v-Src-induced phospholipase D activation. *Nature* 378: 409-412.

CHROMOSOMAL LOCATION

Genetic locus: RALB (human) mapping to 2q14.2; Ralb (mouse) mapping to 1 E2.3.

SOURCE

Ral B (C-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 177-206 at the C-terminus of Ral B of rat origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ral B (C-8) is available conjugated to agarose (sc-390108 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390108 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390108 PE), fluorescein (sc-390108 FITC), Alexa Fluor® 488 (sc-390108 AF488), Alexa Fluor® 546 (sc-390108 AF546), Alexa Fluor® 594 (sc-390108 AF594) or Alexa Fluor® 647 (sc-390108 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390108 AF680) or Alexa Fluor® 790 (sc-390108 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398108 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Ral B (C-8) is recommended for detection of Ral B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Ral B siRNA (h): sc-41844, Ral B siRNA (m): sc-41845, Ral B shRNA Plasmid (h): sc-41844-SH, Ral B shRNA Plasmid (m): sc-41845-SH, Ral B shRNA (h) Lentiviral Particles: sc-41844-V and Ral B shRNA (m) Lentiviral Particles: sc-41845-V.

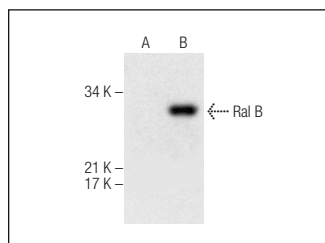
Molecular Weight of Ral B: 23 kDa.

Positive Controls: Ral B (m): 293T Lysate: sc-122953 or RAW 264.7 whole cell lysate: sc-2211.

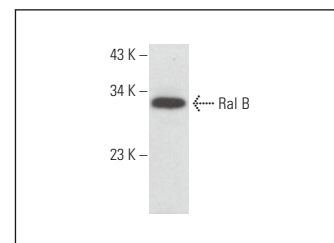
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Ral B (C-8): sc-390108. Western blot analysis of Ral B expression in non-transfected: sc-117752 (A) and mouse Ral B transfected: sc-122953 (B) 293T whole cell lysates.



Ral B (C-8): sc-390108. Western blot analysis of Ral B expression in RAW 264.7 whole cell lysate.

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.

PROTOCOLS

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