SANTA CRUZ BIOTECHNOLOGY, INC.

Ral B (R-19): sc-1531

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.

CHROMOSOMAL LOCATION

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

SOURCE

Ral B (R-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Ral B of rat origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1531 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ral B (R-19) is recommended for detection of Ral B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

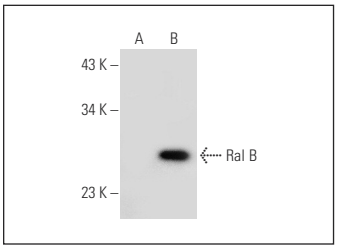
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

DATA



Ral B (R-19): sc-1531. 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.

SELECT PRODUCT CITATIONS

1. de Ruiter, N.D., et al. 2000. Ras-dependent regulation of c-Jun phosphorylation is mediated by the Ral guanine nucleotide exchange factor-Ral pathway. Mol. Cell. Biol. 20: 8480-8488.
2. Lebreton, S., et al. 2003. Control of embryonic *Xenopus* morphogenesis by a Ral-GDS/Xral branch of the Ras signalling pathway. J. Cell Sci. 116: 4651-4662.
3. Gaffre, M., et al. 2006. Deciphering the H-Ras pathway in *Xenopus* oocyte. Oncogene 25: 5155-5162.
4. Fernández, R.M., et al. 2011. Cyclin D1 interacts and collaborates with Ral GTPases enhancing cell detachment and motility. Oncogene 30: 1936-1946.
5. Li, W., et al. 2013. Involvement of estrogen receptor β5 in the progression of glioma. Brain Res. 1503: 97-107.
6. Adas, G., et al. 2013. Treatment of ischemic colonic anastomoses with systemic transplanted bone marrow derived mesenchymal stem cells. Eur. Rev. Med. Pharmacol. Sci. 17: 2275-2285.

RESEARCH USE

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

PROTOCOLS

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