

# Ral BP-1 (H-10): sc-48337

## 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. Cantor, S.B., et al. 1995. Identification and characterization of Ral-binding protein 1, a potential downstream target of Ral GTPases. *Mol. Cell. Biol.* 15: 4578-4584.
5. Jullien-Flores, V., et al. 1995. Bridging Ral GTPase to Rho pathways. RLIP76, a Ral effector with Cdc42/Rac GTPase-activating protein activity. *J. Biol. Chem.* 270: 22473-22477.

## CHROMOSOMAL LOCATION

Genetic locus: RALBP1 (human) mapping to 18p11.22; Ralbp1 (mouse) mapping to 17 E1.1.

## SOURCE

Ral BP-1 (H-10) is a mouse monoclonal antibody raised against amino acids 356-655 (deletion 581-592) of Ral BP-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ral BP-1 (H-10) is available conjugated to agarose (sc-48337 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48337 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-48337 PE), fluorescein (sc-48337 FITC), Alexa Fluor<sup>®</sup> 488 (sc-48337 AF488), Alexa Fluor<sup>®</sup> 546 (sc-48337 AF546), Alexa Fluor<sup>®</sup> 594 (sc-48337 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-48337 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-48337 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-48337 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

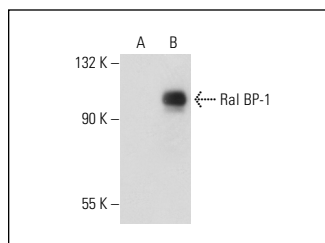
Ral BP-1 (H-10) is recommended for detection of Ral BP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution 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 BP-1 siRNA (h): sc-36376, Ral BP-1 siRNA (m): sc-36377, Ral BP-1 shRNA Plasmid (h): sc-36376-SH, Ral BP-1 shRNA Plasmid (m): sc-36377-SH, Ral BP-1 shRNA (h) Lentiviral Particles: sc-36376-V and Ral BP-1 shRNA (m) Lentiviral Particles: sc-36377-V.

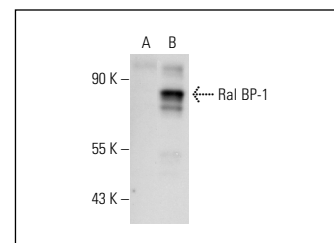
Molecular Weight of Ral BP-1: 95 kDa.

Positive Controls: Ral BP-1 (m): 293T Lysate: sc-122954, Ral BP-1 (h): 293T Lysate: sc-113513 or NIH/3T3 whole cell lysate: sc-2210.

## DATA



Ral BP-1 (H-10): sc-48337. Western blot analysis of Ral BP-1 expression in non-transfected: sc-117752 (A) and mouse Ral BP-1 transfected: sc-122954 (B) 293T whole cell lysates.



Ral BP-1 (H-10): sc-48337. Western blot analysis of Ral BP-1 expression in non-transfected: sc-117752 (A) and human Ral BP-1 transfected: sc-113513 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Fillatre, J., et al. 2012. Dynamics of the subcellular localization of RalBP1/RLIP through the cell cycle: the role of targeting signals and of protein-protein interactions. *FASEB J.* 26: 2164-2174.
2. Awasthi, S., et al. 2018. Anticancer activity of 2'-hydroxyflavanone towards lung cancer. *Oncotarget* 9: 36202-36219.
3. Hussain, S.S., et al. 2021. RalA and PLD1 promote lipid droplet growth in response to nutrient withdrawal. *Cell Rep.* 36: 109451.

## 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](http://www.scbt.com) for detailed protocols and support products.