

Rho V (N-12): sc-160741

BACKGROUND

The Rho subfamily of Ras-related GTPases controls multiple aspects of cell function, including cytoskeletal rearrangement, nuclear signaling and cell growth. Rho V (ras homolog gene family, member V), also known as Rho GTPase-like protein ARHV, CHP or WRCH2 (Wnt-1 responsive Cdc42 homolog 2), is a 236 amino acid protein that controls the Actin cytoskeleton through activation of the JNK pathway. A member of the Rho family and small GTPase superfamily, Rho V functions as a lipid anchor at the cytoplasmic side of the cell membrane and is expressed in placenta, pancreas and fetal brain. Rho V is implicated in cell transformation and is encoded by a gene located on human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

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- Aronheim, A., et al. 1998. Chp, a homologue of the GTPase Cdc42Hs, activates the JNK pathway and is implicated in reorganizing the Actin cytoskeleton. *Curr. Biol.* 8: 1125-1128.
- Katoh, M. 2002. Molecular cloning and characterization of WRCH2 on human chromosome 15q15. *Int. J. Oncol.* 20: 977-982.
- Wherlock, M. and Mellor, H. 2002. The Rho GTPase family: a Racs to Wrchs story. *J. Cell Sci.* 115: 239-240.
- Chenette, E.J., et al. 2005. Critical and distinct roles of amino- and carboxyl-terminal sequences in regulation of the biological activity of the Chp atypical Rho GTPase. *J. Biol. Chem.* 280: 13784-13792.
- Weisz Hubsman, M., et al. 2007. Autophosphorylation-dependent degradation of Pak1, triggered by the Rho-family GTPase, Chp. *Biochem. J.* 404: 487-497.

CHROMOSOMAL LOCATION

Genetic locus: RHOV (human) mapping to 15q15.1; Rhov (mouse) mapping to 2 E5.

SOURCE

Rho V (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Rho V of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160741 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Rho V (N-12) is recommended for detection of Rho V 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other Rho family members.

Suitable for use as control antibody for Rho V siRNA (h): sc-90108, Rho V siRNA (m): sc-152858, Rho V shRNA Plasmid (h): sc-90108-SH, Rho V shRNA Plasmid (m): sc-152858-SH, Rho V shRNA (h) Lentiviral Particles: sc-90108-V and Rho V shRNA (m) Lentiviral Particles: sc-152858-V.

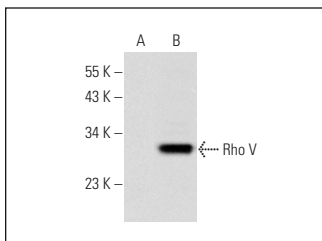
Molecular Weight of Rho V: 26 kDa.

Positive Controls: Rho V (h): 293T Lysate: sc-112497.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Rho V (N-12): sc-160741. Western blot analysis of Rho V expression in non-transfected: sc-117752 (A) and human Rho V transfected: sc-112497 (B) 293T whole cell lysates.

STORAGE

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

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Try **Rho V (F-2): sc-515072**, our highly recommended monoclonal alternative to Rho V (N-12).