

# RASL10B (T-17): sc-74896

## BACKGROUND

Ras-like protein family member 10B (RASL10B), also known as Ras-like protein VTS58635, is a 203 amino acid protein that belongs to the Ras family. Localized to the cytoplasmic side of the cell membrane, RASL10B is widely expressed in human tissues and is a candidate tumor suppressor protein. The gene encoding RASL10B maps to chromosome 17q12. Chromosome 17 makes up over 2.5% of the human genome with about 81 million bases encoding over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Chromosome 17 is also linked to neurofibromatosis, a condition characterized by neural and epidermal lesions, and dysregulated Schwann cell growth. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are also associated with chromosome 17.

## REFERENCES

1. Bos, J.L. 1997. Ras-like GTPases. *Biochim. Biophys. Acta* 1333: M19-M31.
2. Ellis, C.A., Vos, M.D., Howell, H., Vallecorsa, T., Fuets, D.W. and Clark, G.J. 2002. Rig is a novel Ras-related protein and potential neural tumor suppressor. *Proc. Natl. Acad. Sci. USA* 99: 9876-9881.
3. Zou, H., Hu, L., Li, J., Zhan, S. and Cao, K. 2006. Cloning and characterization of a novel small monomeric GTPase, RasL10B, with tumor suppressor potential. *Biotechnol. Lett.* 28: 1901-1908.
4. Tuskan, R.G., Tsang, S., Sun, Z., Baer, J., Rozenblum, E., Wu, X., Munroe, D.J. and Reilly, K.M. 2008. Real-time PCR analysis of candidate imprinted genes on mouse chromosome 11 shows balanced expression from the maternal and paternal chromosomes and strain-specific variation in expression levels. *Epigenetics* 3: 43-50.
5. Neuwald, A.F. 2009. The glycine brace: a component of Rab, Rho, and Ran GTPases associated with hinge regions of guanine- and phosphate-binding loops. *BMC Struct. Biol.* 9: 11.
6. Pannekoek, W.J., Kooistra, M.R., Zwartkruis, F.J. and Bos, J.L. 2009. Cell-cell junction formation: the role of Rap1 and Rap1 guanine nucleotide exchange factors. *Biochim. Biophys. Acta* 1788: 790-796.
7. Elias, M. and Archibald, J.M. 2009. The RNL family of small GTPases is an ancient eukaryotic invention probably functionally associated with the flagellar apparatus. *Gene* 442: 63-72.
8. Avruch, J., Xavier, R., Bardeesy, N., Zhang, X.F., Praskova, M., Zhou, D. and Xia, F. 2009. Rassf family of tumor suppressor polypeptides. *J. Biol. Chem.* 284: 11001-11005.

## CHROMOSOMAL LOCATION

Genetic locus: RASL10B (human) mapping to 17q12; Rasl10b (mouse) mapping to 11 C.

## SOURCE

RASL10B (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RASL10B of human origin.

## RESEARCH USE

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

## 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-74896 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

RASL10B (T-17) is recommended for detection of RASL10B 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).

RASL10B (T-17) is also recommended for detection of RASL10B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RASL10B siRNA (h): sc-76353, RASL10B siRNA (m): sc-76354, RASL10B shRNA Plasmid (h): sc-76353-SH, RASL10B shRNA Plasmid (m): sc-76354-SH, RASL10B shRNA (h) Lentiviral Particles: sc-76353-V and RASL10B shRNA (m) Lentiviral Particles: sc-76354-V.

Molecular Weight of RASL10B: 23 kDa.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.