

# RASL12 (V-17): sc-137709

## BACKGROUND

The Ras family of proteins participate in a diverse array of functions, including signal transduction, cytoskeleton dynamics and intracellular trafficking. Ras proteins cycle between a biologically inactive GDP-bound state and an active GTP-bound state. RASL12 (Ras-like protein family member 12), is a 266 amino acid protein that belongs to the small GTPase superfamily and the Ras family. The RASL12 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish and *C. elegans*, and maps to human chromosome 15q22.31. Encoding more than 700 genes, chromosome 15 is made up of approximately 106 million base pairs and is about 3% of the human genome. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is located on chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

## REFERENCES

1. Bourne, H.R., et al. 1990. The GTPase superfamily: a conserved switch for diverse cell functions. *Nature* 348: 125-132.
2. Boguski, M.S. and McCormick, F. 1993. Proteins regulating Ras and its relatives. *Nature* 366: 643-654.
3. Whitehead, I.P., et al. 1996. Expression cloning of *Isc*, a novel oncogene with structural similarities to the *Dbl* family of guanine nucleotide exchange factors. *J. Biol. Chem.* 271: 18643-18650.
4. Colicelli, J. 2004. Human RAS superfamily proteins and related GTPases. *Sci. STKE* 2004: RE13.
5. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. *Nature* 440: 671-675.
6. Cachón-González, M.B., et al. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. *Proc. Natl. Acad. Sci. USA* 103: 10373-10378.

## CHROMOSOMAL LOCATION

Genetic locus: RASL12 (human) mapping to 15q22.31; Rasl12 (mouse) mapping to 9 C.

## SOURCE

RASL12 (V-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RASL12 of human 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-137709 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

RASL12 (V-17) is recommended for detection of RASL12 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 RASL family members.

RASL12 (V-17) is also recommended for detection of RASL12 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RASL12 siRNA (h): sc-90203, RASL12 siRNA (m): sc-152714, RASL12 shRNA Plasmid (h): sc-90203-SH, RASL12 shRNA Plasmid (m): sc-152714-SH, RASL12 shRNA (h) Lentiviral Particles: sc-90203-V and RASL12 shRNA (m) Lentiviral Particles: sc-152714-V.

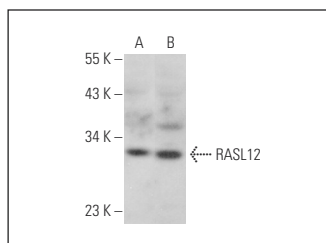
Molecular Weight of RASL12: 30 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

## 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



RASL12 (V-17): sc-137709. Western blot analysis of RASL12 expression in MCF7 (A) and HeLa (B) whole cell lysates.

## 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) or our catalog for detailed protocols and support products.