

RILPL1 (E-15): sc-248435

BACKGROUND

RILPL1 (Rab interacting lysosomal protein-like 1P) is a 403 amino acid protein that belongs to the RILPL family. RILPL1 is a neuroprotective protein, which acts by sequestering GAPDH in the cytosol and preventing the apoptotic function of GAPDH in the nucleus. S-nitrosylation is required for the interaction between RILPL1 and GAPDH. RILPL1 competes with SIAH1 for binding GAPDH, but does not regulate lysosomal morphology and distribution. RILPL1 shares 32% and 22% amino acid identity with RILPL2 and RILP, respectively. Expressed in heart, brain, placenta, lung, skeletal muscle and pancreas, RILPL1 is expressed at lower levels in liver and kidney. Existing as three alternatively spliced isoforms, the RILPL1 gene is conserved in chimpanzee, dog, cow, mouse, rat, chicken, zebrafish, fruit fly, mosquito and *C.elegans*, and maps to human chromosome 12q24.31. The RILPL1 gene contains at least seven exons.

REFERENCES

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2. Scherer, S.E., et al. 2006. The finished DNA sequence of human chromosome 12. *Nature* 440: 346-351.
3. Lisé, M.F., et al. 2009. Myosin-Va-interacting protein, RILPL2, controls cell shape and neuronal morphogenesis via Rac signaling. *J. Cell Sci.* 122: 3810-3821.
4. Sen, N., et al. 2009. GOSPEL: a neuroprotective protein that binds to GAPDH upon S-nitrosylation. *Neuron* 63: 81-91.
5. Burkard, T.R., et al. 2011. Initial characterization of the human central proteome. *BMC Syst. Biol.* 5: 17.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2011. Johns Hopkins University, Baltimore, MD. MIM Number: 614092. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: RILPL1 (human) mapping to 12q24.31; Rilpl1 (mouse) mapping to 5 F.

SOURCE

RILPL1 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RILPL1 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-248435 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

RILPL1 (E-15) is recommended for detection of RILPL1 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); non cross-reactive with RILPL2.

RILPL1 (E-15) is also recommended for detection of RILPL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RILPL1 siRNA (h): sc-96169, RILPL1 siRNA (m): sc-152960, RILPL1 shRNA Plasmid (h): sc-96169-SH, RILPL1 shRNA Plasmid (m): sc-152960-SH, RILPL1 shRNA (h) Lentiviral Particles: sc-96169-V and RILPL1 shRNA (m) Lentiviral Particles: sc-152960-V.

Molecular Weight of RILPL1 isoforms 1/2/3: 47/42/29 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 or our catalog for detailed protocols and support products.