

RILP (E-18): sc-82746

BACKGROUND

RILP (Rab interacting lysosomal protein), also known as PP10141, is a 401 amino acid protein that contains one RILP-like domain and localizes to cytoplasmic vesicles, as well as to the late endosome membrane and the intracytoplasmic membrane. Expressed ubiquitously with strongest expression in spleen, heart, stomach, liver, lung and salivary gland, RILP exists as a homodimer that affects Rab function and plays an important role in late endocytic transport to degradative compartments. In addition, RILP is involved in the recruitment of Dynein-Dynactin motor complex to late endosomes and also participates in the regulation of lysosomal morphology and distribution. Two isoforms of RILP exist due to alternative splicing events.

REFERENCES

1. Bucci, C., et al. 2001. Expression analysis and chromosomal assignment of PRA1 and RILP genes. *Biochem. Biophys. Res. Commun.* 286: 815-819.
2. Cantalupo, G., et al. 2001. Rab-interacting lysosomal protein (RILP): the Rab 7 effector required for transport to lysosomes. *EMBO J.* 20: 683-693.
3. Online Mendelian Inheritance in Man, OMIM[™]. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607848. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Wu, M., et al. 2005. Structural basis for recruitment of RILP by small GTPase Rab 7. *EMBO J.* 24: 1491-1501.
5. Marsman, M., et al. 2006. A splice variant of RILP induces lysosomal clustering independent of dynein recruitment. *Biochem. Biophys. Res. Commun.* 344: 747-756.
6. Progidia, C., et al. 2006. RILP interacts with the VPS22 component of the ESCRT-II complex. *Biochem. Biophys. Res. Commun.* 347: 1074-1079.

CHROMOSOMAL LOCATION

Genetic locus: RILP (human) mapping to 17p13.3; Rilp (mouse) mapping to 11 B5.

SOURCE

RILP (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RILP 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-82746 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.

RESEARCH USE

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

APPLICATIONS

RILP (E-18) is recommended for detection of RILP 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).

RILP (E-18) is also recommended for detection of RILP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RILP siRNA (h): sc-76404, RILP siRNA (m): sc-76405, RILP shRNA Plasmid (h): sc-76404-SH, RILP shRNA Plasmid (m): sc-76405-SH, RILP shRNA (h) Lentiviral Particles: sc-76404-V and RILP shRNA (m) Lentiviral Particles: sc-76405-V.

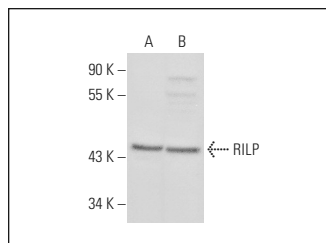
Molecular Weight of RILP: 45 kDa.

Positive Controls: NCI-H226 whole cell lysate: sc-364256 or A549 cell lysate: sc-2413.

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



RILP (E-18): sc-82746. Western blot analysis of RILP expression in NCI-H226 (A) and A549 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sender, V., et al. 2011. Pulmonary surfactant protein A enhances endolysosomal trafficking in alveolar macrophages through regulation of Rab7. *J. Immunol.* 186: 2397-2411.
2. De Luca, M., et al. 2014. RILP regulates vacuolar ATPase through interaction with the V1G1 subunit. *J. Cell Sci.* 127: 2697-2708.