SANTA CRUZ BIOTECHNOLOGY, INC.

RILP siRNA (m): sc-76405

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

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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 Rab7. 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. Progida, C., et al. 2006. RILP interacts with the VPS22 component of the ESCRT-II complex. Biochem. Biophys. Res. Commun. 347: 1074-1079.
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CHROMOSOMAL LOCATION

Genetic locus: Rilp (mouse) mapping to 11 B5.

PRODUCT

RILP siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RILP shRNA Plasmid (m): sc-76405-SH and RILP shRNA (m) Lentiviral Particles: sc-76405-V as alternate gene silencing products.

For independent verification of RILP (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-76405A, sc-76405B and sc-76405C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

RILP siRNA (m) is recommended for the inhibition of RILP expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor RILP gene expression knockdown using RT-PCR Primer: RILP (m)-PR: sc-76405-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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