

RILPL1 siRNA (h): sc-96169

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, canine, bovine, 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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CHROMOSOMAL LOCATION

Genetic locus: RILPL1 (human) mapping to 12q24.31.

RESEARCH USE

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

PROTOCOLS

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

PRODUCT

RILPL1 siRNA (h) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RILPL1 shRNA Plasmid (h): sc-96169-SH and RILPL1 shRNA (h) Lentiviral Particles: sc-96169-V as alternate gene silencing products.

For independent verification of RILPL1 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-96169A, sc-96169B and sc-96169C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

RILPL1 siRNA (h) is recommended for the inhibition of RILPL1 expression in human 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 μ M in 66 μ l. 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 RILPL1 gene expression knockdown using RT-PCR Primer: RILPL1 (h)-PR: sc-96169-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.