

RILPL2 siRNA (m): sc-152961

BACKGROUND

RILPL2 (Rab interacting lysosomal protein-like 2), also known as RLP2, is a 211 amino acid protein that belongs to the RILPL family. RILPL2 does not regulate lysosomal morphology or distribution. RILPL2 shares 32% and 18% amino acid identity with RILPL1 and RILP, respectively. RILPL2 as a novel interacting partner for the Actin-based molecular motor MyoVa, and has a novel role for RILPL2 in controlling neuronal morphogenesis. It has been suggested that there is also a novel role for RILPL2 in the regulation of cellular shape and dendritic-spine morphogenesis, probably via the Rac1-Pak pathway. PCR analysis of human tissues detects highest RILPL2 expression in lung, followed by placenta. Lower expression is detected in liver, kidney, pancreas, heart and brain, but no expression is detected in skeletal muscle. The RILPL2 gene is conserved in chimpanzee, canine, bovine mouse, rat, chicken and zebrafish, and maps to human chromosome 12q24.31.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Rilpl2 (mouse) mapping to 5 F.

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

RILPL2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RILPL2 shRNA Plasmid (m): sc-152961-SH and RILPL2 shRNA (m) Lentiviral Particles: sc-152961-V as alternate gene silencing products.

For independent verification of RILPL2 (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-152961A, sc-152961B and sc-152961C.

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

RILPL2 siRNA (m) is recommended for the inhibition of RILPL2 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 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 RILPL2 gene expression knockdown using RT-PCR Primer: RILPL2 (m)-PR: sc-152961-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.