

SLITRK3 siRNA (h): sc-78306

BACKGROUND

The leucine-rich (LRR) repeat is a 20-30 amino acid motif that forms a hydrophobic α/β horseshoe fold, allowing it to accommodate several leucine residues within a tightly packed core. All LRR repeats contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. SLITRK3 (SLIT and NTRK-like family, member 3) is a 977 amino acid single-pass type I membrane protein that contains 20 LRR repeats and belongs to the SLITRK family. Expressed at highest levels in cerebral cortex, SLITRK3 is also found in adult and fetal neural tissues and some astrocytic brain tumors. SLITRK3 functions to suppress neurite outgrowth and plays a role in the regulation of neuronal function. SLITRK3 is encoded by a gene that maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

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3. Aruga, J. 2003. SLITRK6 expression profile in the mouse embryo and its relationship to that of NLRR3. Gene Expr. Patterns 3: 727-733.
4. Aruga, J. and Mikoshiba, K. 2003. Identification and characterization of SLITRK, a novel neuronal transmembrane protein family controlling neurite outgrowth. Mol. Cell. Neurosci. 24: 117-129.
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CHROMOSOMAL LOCATION

Genetic locus: SLITRK3 (human) mapping to 3q26.1.

PRODUCT

SLITRK3 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 SLITRK3 shRNA Plasmid (h): sc-78306-SH and SLITRK3 shRNA (h) Lentiviral Particles: sc-78306-V as alternate gene silencing products.

For independent verification of SLITRK3 (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-78306A, sc-78306B and sc-78306C.

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

SLITRK3 siRNA (h) is recommended for the inhibition of SLITRK3 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 SLITRK3 gene expression knockdown using RT-PCR Primer: SLITRK3 (h)-PR: sc-78306-PR (20 μ l). 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.

PROTOCOLS

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