

TM9SF2 siRNA (h): sc-76676

BACKGROUND

TM9SF2 (transmembrane 9 superfamily member 2), also known as p76, is a 663 amino acid endosomal multi-pass membrane protein that is ubiquitously expressed, with high expression in pancreas and kidney, and lower levels in lung, liver, skeletal muscle, placenta, brain and heart. A member of the nonaspanin (TM9SF) family, TM9SF2 is thought to act as an endosome ion channel or small molecule transporter in intracellular compartments, and colocalizes with both transferrin receptors and various mannose 6-phosphate receptors. The gene encoding TM9SF2 maps to human chromosome 13q32.3, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

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CHROMOSOMAL LOCATION

Genetic locus: TM9SF2 (human) mapping to 13q32.3.

PRODUCT

TM9SF2 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 TM9SF2 shRNA Plasmid (h): sc-76676-SH and TM9SF2 shRNA (h) Lentiviral Particles: sc-76676-V as alternate gene silencing products.

For independent verification of TM9SF2 (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-76676A, sc-76676B and sc-76676C.

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

TM9SF2 siRNA (h) is recommended for the inhibition of TM9SF2 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 TM9SF2 gene expression knockdown using RT-PCR Primer: TM9SF2 (h)-PR: sc-76676-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.