SANTA CRUZ BIOTECHNOLOGY, INC.

TM9SF1 siRNA (h): sc-92431

BACKGROUND

Transmembrane 9 superfamily member 1 (TM9SF1), also known as MP70 or HMP70, is a 606 amino acid member of the nonaspin (TM9SF) family. A multipass membrane protein with nine putative hydrophobic transmembrane domains, TM9SF1 is expressed in lung, pancreas, liver, kidney and placenta. Lower levels of expression can be found in brain, heart and skeletal muscle. TM9SF1 is highly conserved among a variety of species and shares homology with three complete yeast proteins, ten plant proteins and one nematode unidentified protein. Protein conformation and cloning data suggest that TM9SF1 may function as a channel, small molecular transporter or receptor.

REFERENCES

1. Chluba-de Tapia, J., et al. 1997. Cloning of a human multispanning membrane protein cDNA: evidence for a new protein family. Gene 197: 195-204.
2. Sugasawa, T., et al. 2001. The iodocyanopindolol and SM-11044 binding protein belongs to the TM9SF multispanning membrane protein superfamily. Gene 273: 227-237.
3. Schlegel, J., et al. 2004. Serial induction of mutations by ethylnitrosourea in PC12 cells: a new model for a phenotypical characterization of the neurotoxic response to 6-hydroxydopamine. J. Neurosci. Methods 137: 215-220.
4. Rødahl, E., et al. 2005. Chromosomal imbalances in some benign orbital tumours. Acta Ophthalmol. Scand. 83: 385-391.
5. Papa, F.T., et al. 2008. A 3 Mb deletion in 14q12 causes severe mental retardation, mild facial dysmorphisms and Rett-like features. Am. J. Med. Genet. A. 146A: 1994-1998.
6. Romanos, M., et al. 2008. Genome-wide linkage analysis of ADHD using high-density SNP arrays: novel loci at 5q13.1 and 14q12. Mol. Psychiatry 13: 522-530.

CHROMOSOMAL LOCATION

Genetic locus: TM9SF1 (human) mapping to 14q12.

PRODUCT

TM9SF1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TM9SF1 shRNA Plasmid (h): sc-92431-SH and TM9SF1 shRNA (h) Lentiviral Particles: sc-92431-V as alternate gene silencing products.

For independent verification of TM9SF1 (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-92431A, sc-92431B and sc-92431C.

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.

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

TM9SF1 siRNA (h) is recommended for the inhibition of TM9SF1 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 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 TM9SF1 gene expression knockdown using RT-PCR Primer: TM9SF1 (h)-PR: sc-92431-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.