

STOML1 siRNA (h): sc-90055

BACKGROUND

STOML1 (stomatin-like protein 1), also known as SLP1, STORP, EPB72-like protein 1 or protein unc-24 homolog, is a 398 amino acid single-pass type III membrane protein that belongs to the band 7/mec-2 family and contains one SCP2 domain. Although STOML1 is ubiquitously expressed at low levels, expression is high in brain. While it contains no apparent TATA box, the 5' flanking region of the STOML1 gene is GC rich and contains consensus sequences for ubiquitous transcription factors. Comprised of more than 9,000 bases, the STOML1 gene encodes two alternatively spliced isoforms and maps to human chromosome 15q24.1. Chromosome 15 houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

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CHROMOSOMAL LOCATION

Genetic locus: STOML1 (human) mapping to 15q24.1.

PROTOCOLS

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

PRODUCT

STOML1 siRNA (h) is a pool of 2 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 STOML1 shRNA Plasmid (h): sc-90055-SH and STOML1 shRNA (h) Lentiviral Particles: sc-90055-V as alternate gene silencing products.

For independent verification of STOML1 (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-90055A and sc-90055B.

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

STOML1 siRNA (h) is recommended for the inhibition of STOML1 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 STOML1 gene expression knockdown using RT-PCR Primer: STOML1 (h)-PR: sc-90055-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.