

SVOPL siRNA (h): sc-89453

BACKGROUND

SVOPL (putative transporter SVOPL), also known as SV2-related protein-like, is a 492 amino acid multi-pass membrane protein belonging to the major facilitator superfamily. SVOPL is a paralog to synaptic vesicle protein (SVOP) that exists as two alternatively spliced isoforms. The gene encoding SVOPL maps to human chromosome 7q34. Chromosome 7 is approximately 158 million bases long, encodes over 1,000 genes and makes up approximately 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. Deletions of portions of the q arm of chromosome 7 are linked to myeloid disorders, including acute myelogenous leukemia and myelodysplasia.

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: SVOPL (human) mapping to 7q34.

PRODUCT

SVOPL 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 SVOPL shRNA Plasmid (h): sc-89453-SH and SVOPL shRNA (h) Lentiviral Particles: sc-89453-V as alternate gene silencing products.

For independent verification of SVOPL (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-89453A, sc-89453B and sc-89453C.

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

SVOPL siRNA (h) is recommended for the inhibition of SVOPL 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 SVOPL gene expression knockdown using RT-PCR Primer: SVOPL (h)-PR: sc-89453-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.