

SLC25A48 siRNA (m): sc-141395

BACKGROUND

Mitochondrial inner membrane proteins are responsible for the transport of metabolites across the mitochondrial membrane. SLC25A48 (solute carrier family 25, member 48), also known as HDMCP, is a 311 amino acid multi-pass membrane protein that localizes to the mitochondria. Belonging to the mitochondrial carrier family, SLC25A48 contains three solcar repeats. SLC25A48 exists a three alternatively spliced isoforms and is encoded by a gene located on human chromosome 5q31.1. Chromosome 5 contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm, or of chromosome 5 altogether, is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

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CHROMOSOMAL LOCATION

Genetic locus: Slc25a48 (mouse) mapping to 13 B1.

PROTOCOLS

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

PRODUCT

SLC25A48 siRNA (m) 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 SLC25A48 shRNA Plasmid (m): sc-141395-SH and SLC25A48 shRNA (m) Lentiviral Particles: sc-141395-V as alternate gene silencing products.

For independent verification of SLC25A48 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-141395A, sc-141395B and sc-141395C.

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

SLC25A48 siRNA (m) is recommended for the inhibition of SLC25A48 expression in mouse 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 SLC25A48 gene expression knockdown using RT-PCR Primer: SLC25A48 (m)-PR: sc-141395-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.