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SLC25A43 siRNA (m): sc-153519

BACKGROUND

SLC25A43 (solute carrier family 25, member 43) is a 341 amino acid multi-pass membrane protein that belongs to the SLC25 family of mitochondrial carriers. A solute carrier protein, SLC25A43 is found in the inner membrane of the mitochondria where it has a possible role in cell metabolism. Expression of Slc25a43 is found in almost all rat tissues, with highest in brain coronal sections containing olfactory bulb and cerebral cortex, followed by adrenal gland and skeletal muscle. Existing as two alternatively spliced isoforms, the SLC25A43 gene is conserved in canine, mouse, chicken and zebrafish, and maps to human chromosome Xq24. The mouse SLC25A43 gene also maps to chromosome X. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. There are a number of conditions related to an unusual number and combination of sex chromosomes being inherited. More than one copy of the X chromosome with a Y chromosome causes Klinefelter's syndrome. Color blindness, hemophilia, and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently as males carry a single X chromosome.

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CHROMOSOMAL LOCATION

Genetic locus: Slc25a43 (mouse) mapping to X A3.3.

PRODUCT

SLC25A43 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SLC25A43 shRNA Plasmid (m): sc-153519-SH and SLC25A43 shRNA (m) Lentiviral Particles: sc-153519-V as alternate gene silencing products.

For independent verification of SLC25A43 (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-153519A, sc-153519B and sc-153519C.

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

SLC25A43 siRNA (m) is recommended for the inhibition of SLC25A43 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 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 SLC25A43 gene expression knockdown using RT-PCR Primer: SLC25A43 (m)-PR: sc-153519-PR (20 µl). 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.