

# SLC25A41 siRNA (h): sc-97248

## BACKGROUND

SLC25A41 (solute carrier family 25, member 41) is a 370 amino acid multi-pass membrane protein that belongs to the SLC25 family of mitochondrial carrier proteins. SLC25A41 contains three solcar repeats. The SLC25A41 protein is believed to share 54-64% amino acid identity with ATP-Mg carriers. SLC25A41 has all contact points, R40, K91, E95, G184 and I185, identical to the other ATP-Mg carriers. In rat tissues highest expression of Slc25a41 has been detected in liver, testis and all brain coronal sections examined, with weaker expression in epididymis. No expression of Slc25a41 was detected in other tissues examined. Existing as two alternatively spliced isoforms, the SLC25A41 gene contains six exons, is conserved in chimpanzee, canine, bovine, mouse and rat, and maps to human chromosome 19p13.3. The mouse gene maps to chromosome 17 D. Human chromosome 19 consists of approximately 63 million bases and makes up over 2% of human genomic DNA.

## REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610822. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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## CHROMOSOMAL LOCATION

Genetic locus: SLC25A41 (human) mapping to 19p13.3.

## PRODUCT

SLC25A41 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SLC25A41 shRNA Plasmid (h): sc-97248-SH and SLC25A41 shRNA (h) Lentiviral Particles: sc-97248-V as alternate gene silencing products.

For independent verification of SLC25A41 (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-97248A, sc-97248B and sc-97248C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

SLC25A41 siRNA (h) is recommended for the inhibition of SLC25A41 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  $\mu$ M in 66  $\mu$ 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 SLC25A41 gene expression knockdown using RT-PCR Primer: SLC25A41 (h)-PR: sc-97248-PR (20  $\mu$ 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.