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SLC25A29 siRNA (m): sc-153509

BACKGROUND

SLC25A29 (solute carrier family 25 member 29), also known as CACL (mitochondrial carnitine/acylcarnitine translocase- (SLC25A20-) like) or C14orf69, is a 303 amino acid multi-pass membrane protein that belongs to the the SLC25 family of mitochondrial carriers that are responsible for transporting metabolites across the inner mitochondrial membrane. Expressed predominantly in tissues that use fatty acids as fuels (ie. liver and heart), SLC25A29 contains three Solcar repeats, localizes to the mitochondrion inner membrane and is believed to participate in palmitoylcarnitine transport. This suggests that SLC25A29 plays an important role in fatty acid catabolism. In addition, the expression of SLC25A29 is induced by various stresses including fasting and partial hepatectomy, implicating SLC25A29 in the body's adaptive response of a change in the energy source from glucose to free fatty acids.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Slc25a29 (mouse) mapping to 12 F1.

PROTOCOLS

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

PRODUCT

SLC25A29 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 SLC25A29 shRNA Plasmid (m): sc-153509-SH and SLC25A29 shRNA (m) Lentiviral Particles: sc-153509-V as alternate gene silencing products.

For independent verification of SLC25A29 (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-153509A, sc-153509B and sc-153509C.

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

SLC25A29 siRNA (m) is recommended for the inhibition of SLC25A29 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 SLC25A29 gene expression knockdown using RT-PCR Primer: SLC25A29 (m)-PR: sc-153509-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.