SANTA CRUZ BIOTECHNOLOGY, INC.

SGLT-5 siRNA (h): sc-93861

BACKGROUND

Glucose, an essential substrate that is necessary for proper metabolism, is a polar molecule that is transported through biological membranes via specific transport proteins. The family of Na^+-dependent glucose cotransporters (SGLT) mediate an active, sodium-linked transport process against an electrochemical gradient. The SGLT family of proteins are essential for absorption of dietary D-glucose and D-galactose from the intestinal lumen and in the reabsorption of D-glucose from the glomerular filtrate in kidney. SGLT-5, also known as SLC5A10 (solute carrier family 5 (sodium/glucose cotransporter), member 10), is a 596 amino acid multi-pass membrane protein belonging to the sodium: solute symporter (SSF) family that may function as a glucose transporter.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC5A10 (human) mapping to 17p11.2.

PROTOCOLS

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

PRODUCT

SGLT-5 siRNA (h) is a target-specific 19-25 nt siRNA 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 SGLT-5 shRNA Plasmid (h): sc-93861-SH and SGLT-5 shRNA (h) Lentiviral Particles: sc-93861-V as alternate gene silencing products.

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

SGLT-5 siRNA (h) is recommended for the inhibition of SGLT-5 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 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 SGLT-5 gene expression knockdown using RT-PCR Primer: SGLT-5 (h)-PR: sc-93861-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.