SANTA CRUZ BIOTECHNOLOGY, INC.

SLC17A2 siRNA (h): sc-95254

BACKGROUND

SLC17A2 (Solute carrier family 17 member 2), also known as NPT3 (Na^+/PI cotransporter 3), is a 439 amino acid multi-pass membrane protein that belongs to the sodium/anion cotransporter family of the major facilitator superfamily. Expressed in the spleen, small intestine, testis and kidney, SLC17A2 is involved in active transport of phosphate into cells through a sodium/phosphate co-transport system. SLC17A2 contains four transmembrane domains and the gene encoding SLC17A2 localizes to the region of chromosome 6 that is associated with hereditary hemochromatosis (HFE or HH). HFE is a condition characterized by cirrhosis of the liver, hypermelanotic pigmentation of the skin, diabetes and heart failure. Due to alternative splicing events, two SLC17A2 isoforms exist.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC17A2 (human) mapping to 6p22.2.

PROTOCOLS

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

PRODUCT

SLC17A2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SLC17A2 shRNA Plasmid (h): sc-95254-SH and SLC17A2 shRNA (h) Lentiviral Particles: sc-95254-V as alternate gene silencing products.

For independent verification of SLC17A2 (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-95254A, sc-95254B and sc-95254C.

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

SLC17A2 siRNA (h) is recommended for the inhibition of SLC17A2 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 SLC17A2 gene expression knockdown using RT-PCR Primer: SLC17A2 (h)-PR: sc-95254-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.