SANTA CRUZ BIOTECHNOLOGY, INC.

# SLC22A11 siRNA (h): sc-97017

## BACKGROUND

SLC22A11 (solute carrier family 22 (organic anion/urate transporter), member 11), also known as OAT4 (organic anion transporter 4), is a 550 amino acid multi-pass membrane protein that belongs to the organic cation transporter subfamily of major facilitator proteins. Expressed in kidney and placenta, SLC22A11 functions to mediate the saturable uptake of dehydroepiandrosterone sulfate, estrone sulfate and other related compounds, possibly playing a role in preventing harmful organic anions from reaching the developing fetus. SLC22A11 exists as multiple alternatively spliced isoforms and is subject to post-translational N-glycosylation. The gene encoding SLC22A11 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome.

## REFERENCES


1. Cha, S.H., et al. 2000. Molecular cloning and characterization of multispecific organic anion transporter 4 expressed in the placenta. J. Biol. Chem. 275: 4507-4512.
2. Enomoto, A., et al. 2002. Molecular identification of a renal urate anion exchanger that regulates blood urate levels. Nature 417: 447-452.
3. Ekaratanawong, S., et al. 2004. Human organic anion transporter 4 is a renal apical organic anion/dicarboxylate exchanger in the proximal tubules. J. Pharmacol. Sci. 94: 297-304.
4. Zhou, F., et al. 2004. The role of glycine residues in the function of human organic anion transporter 4. Mol. Pharmacol. 65: 1141-1147.
5. Zhou, F., et al. 2005. The role of N-linked glycosylation in protein folding, membrane targeting, and substrate binding of human organic anion transporter hOAT4. Mol. Pharmacol. 67: 868-876.
6. Hagos, Y., et al. 2007. Human renal organic anion transporter 4 operates as an asymmetric urate transporter. J. Am. Soc. Nephrol. 18: 430-439.
7. Lee, W.K., et al. 2008. Co-localization and interaction of human organic anion transporter 4 with caveolin-1 in primary cultured human placental trophoblasts. Exp. Mol. Med. 40: 505-513.


## CHROMOSOMAL LOCATION

Genetic locus: SLC22A11 (human) mapping to 11q13.1.

## PRODUCT

SLC22A11 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 SLC22A11 shRNA Plasmid (h): sc-97017-SH and SLC22A11 shRNA (h) Lentiviral Particles: sc-97017-V as alternate gene silencing products.

For independent verification of SLC22A11 (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-97017A, sc-97017B and sc-97017C.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## 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

SLC22A11 siRNA (h) is recommended for the inhibition of SLC22A11 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 SLC22A11 gene expression knockdown using RT-PCR Primer: SLC22A11 (h)-PR: sc-97017-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

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