

CNT3 siRNA (m): sc-60426

BACKGROUND

The concentrative nucleoside transporter (CNT) protein family comprises three members: CNT1, CNT2 and CNT3. This family regulates multiple cellular processes, including neurotransmission, vascular tone and adenosine concentration in the vicinity of cell surface receptors. CNT3 plays an important role in mediating the cellular entry and metabolism of purine and pyrimidine nucleosides and a variety of synthetic antiviral and anticancer nucleoside analog drugs. Electrostatic interaction is the force that drives CNT3 transport. Specifically, CNT3 couples active nucleoside transport with passive sodium and proton transport.

REFERENCES

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7. Damaraju, S., et al. 2005. Identification and functional characterization of variants in human concentrative nucleoside transporter 3, hCNT3 (SLC28A3), arising from single nucleotide polymorphisms in coding regions of the hCNT3 gene. *Pharmacogenet. Genomics* 15: 173-182.
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CHROMOSOMAL LOCATION

Genetic locus: SLC28A3 (mouse) mapping to 13 B1.

PRODUCT

CNT3 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 CNT3 shRNA Plasmid (m): sc-60426-SH and CNT3 shRNA (m) Lentiviral Particles: sc-60426-V as alternate gene silencing products.

For independent verification of CNT3 (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-60426A, sc-60426B and sc-60426C.

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

CNT3 siRNA (m) is recommended for the inhibition of CNT3 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 CNT3 gene expression knockdown using RT-PCR Primer: CNT3 (m)-PR: sc-60426-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.

PROTOCOLS

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