

SNAT6 siRNA (h): sc-92379

BACKGROUND

The sodium-coupled neutral amino acid transporters (SNAT) of the SLC38 gene family include System A subtypes SNAT1, SNAT2 and SNAT4 and system N subtypes SNAT3 and SNAT5. The SLC38 transporters are essential for the uptake of nutrients, energy production, metabolism, detoxification, and the cycling of neurotransmitters. SNAT6 (sodium-coupled neutral amino acid transporter 6), also known as Solute carrier family 38 member 6 and N-system amino acid transporter 1, is a 456 amino acid multi-pass membrane protein that is considered to be a probable sodium-coupled neutral amino acid transporter that is widely expressed in brain. There are two isoforms of SNAT6 that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC38A6 (human) mapping to 14q23.1.

PRODUCT

SNAT6 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SNAT6 shRNA Plasmid (h): sc-92379-SH and SNAT6 shRNA (h) Lentiviral Particles: sc-92379-V as alternate gene silencing products.

For independent verification of SNAT6 (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-92379A, sc-92379B and sc-92379C.

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

SNAT6 siRNA (h) is recommended for the inhibition of SNAT6 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 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 SNAT6 gene expression knockdown using RT-PCR Primer: SNAT6 (h)-PR: sc-92379-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.