

XTRP3 siRNA (m): sc-155397

BACKGROUND

The solute carrier (SLC6) family, also known as the neurotransmitter transporter family, is one of the largest transporter families in the human genome comprising 20 members. The sodium- and chloride-dependent transporter XTRP3, also designated neurotransmitter transporter rB21A homolog is expressed in the medullary layer of the brain, as well as in the kidney, lung, and small intestinal tissues. XTRP3 is a 616-amino acid membrane protein that contains 12 putative transmembrane domains and several glycosylation sites that may play a role in regulating cerebrospinal fluid (CSF) levels of its substrate. XTRP3 may be a candidate for transporter-based therapeutic agents aiding in neurological and psychiatric disorders.

REFERENCES

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3. Kowalczyk, S., Broer, A., Munzinger, M., Tietze, N., Klingel, K. and Broer, S. 2005. Molecular cloning of the mouse IMINO system: an Na⁺- and Cl⁻-dependent proline transporter. *Biochem. J.* 386: 417-422.
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5. Bröer, S. 2006. The SLC6 orphans are forming a family of amino acid transporters. *Neurochem. Int.* 48: 559-567.
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CHROMOSOMAL LOCATION

Genetic locus: Slc6a20b (mouse) mapping to 9 F4.

PRODUCT

XTRP3 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see XTRP3 shRNA Plasmid (m): sc-155397-SH and XTRP3 shRNA (m) Lentiviral Particles: sc-155397-V as alternate gene silencing products.

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.

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

XTRP3 siRNA (m) is recommended for the inhibition of XTRP3 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 XTRP3 gene expression knockdown using RT-PCR Primer: XTRP3 (m)-PR: sc-155397-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.