SANTA CRUZ BIOTECHNOLOGY, INC.

Neurexophilin-4 siRNA (h): sc-95870

BACKGROUND

Members of the Neurexophilin family are neuropeptide-like glycoproteins that undergo proteolytic processing after synthesis. As secreted proteins, Neurexophilins are thought to function as signaling molecules which specifically bind to target proteins, such as neurexin Iα (a protein that promotes adhesion between dendrites and axons), and are essential for proper neurotransmitter release. Neurexophilins contain five common domains including a variable N-terminal domain, a highly conserved N-glycosylated central domain, a short linker region and a cysteine-rich conserved C-terminal domain. Neurexophilin-4, also known as NXPH4 or NPH4, is a 308 amino acid secreted protein belonging to the neurexophilin family. Neurexophilin-4 is expressed in brain, spleen and testis, and is encoded by a gene which maps to human chromosome 12q13.3.

REFERENCES

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3. Missler, M. and Südhof, T.C. 1998. Neurexophilins form a conserved family of neuropeptide-like glycoproteins. J. Neurosci. 18: 3630-3638.
4. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604637. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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6. Kang, Y., Zhang, X., Dobie, F., Wu, H. and Craig, A.M. 2008. Induction of GABAergic postsynaptic differentiation by α-neurexins. J. Biol. Chem. 283: 2323-2334.

CHROMOSOMAL LOCATION

Genetic locus: NXPH4 (human) mapping to 12q13.3.

PRODUCT

Neurexophilin-4 siRNA (h) is a pool of 2 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 Neurexophilin-4 shRNA Plasmid (h): sc-95870-SH and Neurexophilin-4 shRNA (h) Lentiviral Particles: sc-95870-V as alternate gene silencing products.

For independent verification of Neurexophilin-4 (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-95870A and sc-95870B.

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

Neurexophilin-4 siRNA (h) is recommended for the inhibition of Neurexophilin-4 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 Neurexophilin-4 gene expression knockdown using RT-PCR Primer: Neurexophilin-4 (h)-PR: sc-95870-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.