SANTA CRUZ BIOTECHNOLOGY, INC.

CNTNAP3 siRNA (m): sc-142445

BACKGROUND

Neurexins comprise a family of neuronal cell surface proteins, which include neurexin I (NRXN1), neurexin II (NRXN2), neurexin III (NRXN3) and CASPR (neurexin IV). Cntnap3 (contactin associated protein-like 3) is a 1,288 amino acid protein belonging to the neurexin family that exists as two alternatively spliced isoforms with different subcellular localization patterns: Cntnap3 isoform 1 is a single-pass type I membrane protein whereas isoform 2 is a secreted protein. Suggested to play a role in nervous system cell recognition, Cntnap3 is expressed in axons of the spinal cord, corpus callosum and basket cells of the cerebellum, as well as in oligodendrocytes and peripheral nerves. Cntnap3 contains four laminin G-like domains, one F5/8 type C domain, two EGF-like domains and a fibrinogen C-terminal domain.

REFERENCES

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3. Burmeister, T., et al. 2007. Atypical Bcr-Abl mRNA transcripts in adult acute lymphoblastic leukemia. Haematologica 92: 1699-1702.
4. Cottin, V., et al. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (Rendu-Osler disease). Respiration 74: 361-378.
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6. Gardiner, J., et al. 2007. Potential role of tubulin acetylation and microtubule-based protein trafficking in familial dysautonomia. Traffic 8: 1145-1149.
7. Hims, M.M., et al. 2007. A humanized IKBKAP transgenic mouse models a tissue-specific human splicing defect. Genomics 90: 389-396.
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CHROMOSOMAL LOCATION

Genetic locus: Cntnap3 (mouse) mapping to 13 B3.

PRODUCT

CNTNAP3 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CNTNAP3 shRNA Plasmid (m): sc-142445-SH and CNTNAP3 shRNA (m) Lentiviral Particles: sc-142445-V as alternate gene silencing products.

For independent verification of CNTNAP3 (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-142445A, sc-142445B and sc-142445C.

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

CNTNAP3 siRNA (m) is recommended for the inhibition of CNTNAP3 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 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 CNTNAP3 gene expression knockdown using RT-PCR Primer: CNTNAP3 (m)-PR: sc-142445-PR (20 µl). 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.