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SANTA CRUZ BIOTECHNOLOGY, INC.

NGL-1 siRNA (m): sc-149953

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NGL-1 (netrin G1 ligand), also known as leucine-rich repeat-containing protein 4C, is a single pass type I membrane protein that acts as a cell adhesion molecule. It contains nine leucine-rich repeats (LRR) and one Ig-like C2-type domain. NGL-1 is predominantly expressed in the striatum and the cerebral cortex of both the embryonic and adult brain. NGL-1 specifically interacts with netrin G1 (a molecule involved in axon guidance in the developing central nervous system) via its LRR region. NGL-1 plays a role in the regulation of neurite outgrowth of developing thalamic neurons. Soluble NGL-1 inhibits thalamic axon outgrowth while NGL-1 that is bound to the surface of developing thalamocortical axons stimulates growth. NGL-1 also interacts with Whirlin possibly stablizing interstereociliar links.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Lrrc4c (mouse) mapping to 2 E1.

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.

PRODUCT

NGL-1 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 NGL-1 shRNA Plasmid (m): sc-149953-SH and NGL-1 shRNA (m) Lentiviral Particles: sc-149953-V as alternate gene silencing products.

For independent verification of NGL-1 (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-149953A, sc-149953B and sc-149953C.

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

NGL-1 siRNA (m) is recommended for the inhibition of NGL-1 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 NGL-1 gene expression knockdown using RT-PCR Primer: NGL-1 (m)-PR: sc-149953-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.