SANTA CRUZ BIOTECHNOLOGY, INC.

neuroguidin siRNA (m): sc-149933

BACKGROUND

Neuroguidin (NGD), also known as eIF4E-binding protein, NGDN, LCP5 or Ipd-2, is a 315 amino acid protein that interacts with eIF4E and CPEB, and plays a role in cytoplasmic polyadenylation element (CPE)-containing mRNA translational repression. A member of the SAS10 family, neuroguidin exists as two alternatively spliced isoforms and localizes to cytoplasm, nucleus and cell projections of axons, dendrites and filopodia. Neuroguidin may play a role in the development of the vertebrate nervous system via transcriptional regulation. Neuroguidin is expressed in brain, kidney, spleen, ovary and testis, and is encoded by a gene that maps to human chromosome 14q11.2. Chromosome 14 houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ngdn (mouse) mapping to 14 C3.

PRODUCT

neuroguidin siRNA (m) 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 neuroguidin shRNA Plasmid (m): sc-149933-SH and neuroguidin shRNA (m) Lentiviral Particles: sc-149933-V as alternate gene silencing products.

For independent verification of neuroguidin (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-149933A and sc-149933B.

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

neuroguidin siRNA (m) is recommended for the inhibition of neuroguidin 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 neuroguidin gene expression knockdown using RT-PCR Primer: neuroguidin (m)-PR: sc-149933-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.