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SANTA CRUZ BIOTECHNOLOGY, INC.

Neurotrypsin siRNA (m): sc-149939

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Neurotrypsin, also known as PRSS12 (protease, serine, 12 (neurotrypsin, motopsin)) or leydin, is an 875 amino acid secreted protein that belongs to the peptidase S1 family and is involved in neuronal plasticity. Expressed in brain and the Leydig cells of testis, Neurotrypsin contains one kringle domain, four SRCR domains and a peptidase S1 domain. Neurotrypsin is implicated in structural reorganizations associated with learning and memory, and is encoded by a gene that maps to human chromosome 4q26. Defects in the Neurotrypsin gene are associated with the development of mental retardation autosomal recessive type 1 (MRT1). Human chromosome 4 represents approximately 6% of the human genome, contains nearly 900 genes and is associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

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CHROMOSOMAL LOCATION

Genetic locus: Prss12 (mouse) mapping to 3 G1.

PRODUCT

Neurotrypsin 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 Neurotrypsin shRNA Plasmid (m): sc-149939-SH and Neurotrypsin shRNA (m) Lentiviral Particles: sc-149939-V as alternate gene silencing products.

For independent verification of Neurotrypsin (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-149939A, sc-149939B and sc-149939C.

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

Neurotrypsin siRNA (m) is recommended for the inhibition of Neurotrypsin 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 Neurotrypsin gene expression knockdown using RT-PCR Primer: Neurotrypsin (m)-PR: sc-149939-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.