SANTA CRUZ BIOTECHNOLOGY, INC.

NPS siRNA (h): sc-106776

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Neuropeptides are regulators of synaptic transmission and their effects are mediated by G protein-coupled receptors. NPS (neuropeptide S) is a 20 amino acid peptide cleaved from a larger precursor that contains a hydrophobic signal peptide and proteolytic cleavage processing sites. The N-terminal residue of NPS is always a serine regardless of the species. NPS is predominantly found in the central nervous system and plays an important role regulating sleep/wake functions, locomotion, arousal/anxiety responses and food intake. NPS functions by binding and activating its receptor, NPSR, and increasing intracellular calcium levels thereby acting as an excitatory transmitter. In addition, NPS stimulates the hypothalamo-pituitary adrenal (HPA) axis via the release of corticotropin-releasing factor (CRF) and arginine vasopressin (AVP). NPS and its receptor NPSR may also play a role in asthma pathogenesis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NPS (human) mapping to 10q26.2.

PRODUCT

NPS siRNA (h) is a target-specific 19-25 nt siRNA 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 NPS shRNA Plasmid (h): sc-106776-SH and NPS shRNA (h) Lentiviral Particles: sc-106776-V as alternate gene silencing products.

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

NPS siRNA (h) is recommended for the inhibition of NPS 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.

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.