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SANTA CRUZ BIOTECHNOLOGY, INC.

NPW siRNA (m): sc-150058

BACKGROUND

NPW (neuropeptide W), also known as preproprotein L8 (PPL8) or PPNPW, is a 165 amino acid secreted protein that is cleaved into two chains: neuropeptide W-23 (also designated NPW23 or L8) and neuropeptide W-30 (also known as NPW30 or L8C). Both NPW neuropeptides activate G protein-coupled receptors in the central nervous system to enhance cortisol secretion. Highly expressed in lymphoblastic leukemia, colorectal adenocarcinoma, fetal kidney, trachea and substantia nigra, NPW is also found at low levels in placenta, ovary, testis and uterus. NPW functions in organization of neuroendocrine signals and is also thought to enhance food and water intake as well as stress responses. The gene encoding NPW maps to human chromosome 16p13.3.

REFERENCES

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PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: Npw (mouse) mapping to 17 A3.3.

PRODUCT

NPW 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 NPW shRNA Plasmid (m): sc-150058-SH and NPW shRNA (m) Lentiviral Particles: sc-150058-V as alternate gene silencing products.

For independent verification of NPW (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-150058A, sc-150058B and sc-150058C.

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

NPW siRNA (m) is recommended for the inhibition of NPW 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 NPW gene expression knockdown using RT-PCR Primer: NPW (m)-PR: sc-150058-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.