SANTA CRUZ BIOTECHNOLOGY, INC.

PTX4 siRNA (h): sc-93110

BACKGROUND

Pentraxins are characterized by a cyclic multimeric structure and a conserved C-terminal pentraxin domain of approximately 200 amino acids. All pentraxins have a conserved 8-amino acid sequence, HxCxS/TWxS, in which x is any amino acid, within their pentraxin domain. Pentraxins are divided into short proteins, such as C-reactive protein (CRP) and serum Amyloid P protein (APCS), and long proteins, such as PTX3 and PTX4. PTX4 (pentraxin 4, long) is a 478 amino acid secreted protein that contains one pentaxin domain and belongs to the pentraxin (PTX) superfamily of multifunctional conserved proteins. Widely expressed at low levels with highest levels in small intestine, testis and brain, PTX4 demonstrates very low expression in endothelial cells, monocytes, neutrophils and lymphocytes. The mouse and human PTX4 proteins contain the same number of amino acids, and they share 64% identity. Existing as two alternatively spliced isoforms, the PTX4 gene is conserved in chimpanzee, canine, bovine, mouse, rat and zebrafish, and maps to human chromosome 16p13.3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PTX4 (human) mapping to 16p13.3.

PRODUCT

PTX4 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 PTX4 shRNA Plasmid (h): sc-93110-SH and PTX4 shRNA (h) Lentiviral Particles: sc-93110-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

PTX4 siRNA (h) is recommended for the inhibition of PTX4 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PTX4 gene expression knockdown using RT-PCR Primer: PTX4 (h)-PR: sc-93110-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.