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PGPEP1L siRNA (m): sc-141906

BACKGROUND

PGPEP1L (pyroglutamyl-peptidase I-like) is a 196 amino acid protein that participates in cysteine-type peptidase activity and belongs to the peptidase C15 family. Conserved in chimpanzee, bovine, mouse and chicken, PGPEP1L is encoded by a gene that maps to human chromosome 15q26.3. Chromosome 15 makes up approximately 3% of the human genome and contains 106 million base pairs encoding more than 700 genes. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes on chromosome 15q. In the case of Angelman syndrome, this loss is due to inactivity of the maternally encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In Prader-Willi syndrome, a partial or complete deletion from the paternal copy of chromosome 15 occurs. Tay-Sachs disease, a lethal disorder associated with mutations of the HEXA gene, and Marfan syndrome are also associated with chromosome 15.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pgpep1l (mouse) mapping to 7 D1.

PRODUCT

PGPEP1L 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PGPEP1L shRNA Plasmid (m): sc-141906-SH and PGPEP1L shRNA (m) Lentiviral Particles: sc-141906-V as alternate gene silencing products.

For independent verification of PGPEP1L (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-141906A and sc-141906B.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PGPEP1L siRNA (m) is recommended for the inhibition of PGPEP1L 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 μ M in 66 μ l. 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 PGPEP1L gene expression knockdown using RT-PCR Primer: PGPEP1L (m)-PR: sc-141906-PR (20 μ l). 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.