SANTA CRUZ BIOTECHNOLOGY, INC.

PODNL1 siRNA (h): sc-97283

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The Power to Question

BACKGROUND

PODNL1 (podocan-like 1), also known as SLRR5B, is a 512 amino acid protein that contains 16 leucine-rich repeats (LRR) and belongs to the small leucine-rich proteoglycan (SLRP) family and the SLRP class V subfamily. Conserved in chimpanzee, canine, bovine, mouse and rat, PODNL1 exists as two alternatively spliced isoforms. The gene that encodes PODNL1 maps to human chromosome 19p13.12, where a novel 2.52 Mb deletion can occur, possibly resulting in multiple congenital anomalies, including deafness, lacrimal duct stenosis, strabismus, bilateral cervical sinuses, congenital cardiac defects, hypoplasia of the corpus callosum and hypoplasia of the cerebellar vermis. Chromosome 19 consists of approximately 63 million bases and makes up over 2% of human genomic DNA. Chromosome 19 contains the greatest gene density of the human chromosomes and is the genetic home for a number of immunoglobulin superfamily members, including killer cell and leukocyte Ig-like receptors, ICAMs, the CEACAM and PSG families, and Fcα receptors.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PODNL1 (human) mapping to 19p13.12.

PROTOCOLS

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

PRODUCT

PODNL1 siRNA (h) 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 PODNL1 shRNA Plasmid (h): sc-97283-SH and PODNL1 shRNA (h) Lentiviral Particles: sc-97283-V as alternate gene silencing products.

For independent verification of PODNL1 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-97283A, sc-97283B and sc-97283C.

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

PODNL1 siRNA (h) is recommended for the inhibition of PODNL1 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 PODNL1 gene expression knockdown using RT-PCR Primer: PODNL1 (h)-PR: sc-97283-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.