

PNLDC1 siRNA (m): sc-152354

BACKGROUND

PNLDC1 (poly(A)-specific ribonuclease (PARN)-like domain containing 1) is a 520 amino acid single-pass type IV membrane protein that belongs to the CAF1 family. Conserved in chimpanzee, canine, bovine, mouse, chicken and *Caenorhabditis elegans*, PNLDC1 participates in nucleic acid binding and exists as two alternatively spliced isoforms. PNLDC1 is encoded by a gene that maps to human chromosome 6q25.3, which is part of a candidate susceptibility locus for lung cancer at 6q23-25. PNLDC1 exhibits a high prevalence for methylation in lung cancer cell lines (83.3%), and is also methylated in normal human bronchial epithelial cells (HBEC) and peripheral blood mononuclear cells (PBMC). PNLDC1 is also a candidate breast-cancer-related gene based on DNA copy number loss in various breast cancer cell lines.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pnlcd1 (mouse) mapping to 17 A1.

PROTOCOLS

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

PRODUCT

PNLDC1 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PNLDC1 shRNA Plasmid (m): sc-152354-SH and PNLDC1 shRNA (m) Lentiviral Particles: sc-152354-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 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

PNLDC1 siRNA (m) is recommended for the inhibition of PNLDC1 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 PNLDC1 gene expression knockdown using RT-PCR Primer: PNLDC1 (m)-PR: sc-152354-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.