

PECR siRNA (h): sc-94883

BACKGROUND

PECR (peroxisomal *trans*-2-enoyl-CoA reductase), also known as TERP, DCRRP (2,4-dienoyl-CoA reductase-related protein), PVIARL, HPDHASE or SDR29C1 (short chain dehydrogenase/reductase family 29C, member 1), is a 303 amino acid protein that contains a C-terminal type I peroxisomal targeting signal (AKL) and belongs to the short-chain dehydrogenases/reductases (SDR) family. Encoded by a gene that maps to human chromosome 2q35, PECR localizes to peroxisome and exists as two alternatively spliced isoforms. PECR is expressed at high levels in liver and kidney, and is found at lower levels in heart, skeletal muscle and other tissues. PECR participates in chain elongation of fatty acids, binding activity and NADPH-specific 2-enoyl-CoA reductase activity, acting as the key enzyme for a proposed peroxisomal chain elongation pathway. PECR is a potential susceptibility locus for rheumatoid arthritis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PECR (human) mapping to 2q35.

PROTOCOLS

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

PRODUCT

PECR 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PECR shRNA Plasmid (h): sc-94883-SH and PECR shRNA (h) Lentiviral Particles: sc-94883-V as alternate gene silencing products.

For independent verification of PECR (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-94883A, sc-94883B and sc-94883C.

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

PECR siRNA (h) is recommended for the inhibition of PECR 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 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 PECR gene expression knockdown using RT-PCR Primer: PECR (h)-PR: sc-94883-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.