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Cyp4f15 siRNA (m): sc-142731

BACKGROUND

Cytochrome P450 proteins are heme-thiolate monooxygenases that mediate NADPH-dependent electron transport and function to oxidize a variety of structurally unrelated compounds, including steroids, fatty acids and xenobiotics. Specifically, cytochrome P450s are responsible for metabolizing arachidonic acid to hydroxyeicosatetraenoic acid (a regulator of blood pressure) and epoxyeicosatrienoic acid (a molecule involved in signaling events). Cyp4f15 (cytochrome P450, family 4, subfamily f, polypeptide 15), also known as A1787289, is a 534 amino acid protein that is encoded by a gene mapping to mouse chromosome 17 B1. The human homolog to Cyp4f15, CYP4F8 (cytochrome P450 4F8), also known as CPF8 or CYP1V8, is a 520 amino acid protein that localizes to endoplasmic reticulum membrane and microsomal membranes. CYP4F8 is encoded by a gene that is part of a cluster of cytochrome P450 genes on human chromosome 19.

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CHROMOSOMAL LOCATION

Genetic locus: Cyp4f15 (mouse) mapping to 17 B1.

PRODUCT

Cyp4f15 siRNA (m) 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 Cyp4f15 shRNA Plasmid (m): sc-142731-SH and Cyp4f15 shRNA (m) Lentiviral Particles: sc-142731-V as alternate gene silencing products.

For independent verification of Cyp4f15 (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-142731A, sc-142731B and sc-142731C.

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

Cyp4f15 siRNA (m) is recommended for the inhibition of Cyp4f15 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 Cyp4f15 gene expression knockdown using RT-PCR Primer: Cyp4f15 (m)-PR: sc-142731-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.