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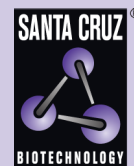
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Cyp2c44 siRNA (m): sc-142681

BACKGROUND

The cytochrome P450 proteins (CyPs) are monooxygenases that catalyze reactions involved in both drug metabolism and in the synthesis of cholesterol, steroids and other lipids. P450 enzymes are classified into subfamilies, such as Cyp1a and Cyp2a, based on their sequence similarities. Cyp2c44 (cytochrome P450, family 2, subfamily C, polypeptide 44) is a 494 amino acid murine protein that belongs to the cytochrome P450 family and is expressed in liver, kidney and adrenal tissue where it is thought to play a role in electrolyte transport and vascular tone. The gene encoding Cyp2c44 maps to mouse chromosome 19 C3.

REFERENCES

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5. DeLozier, T.C., Tsao, C.C., Coulter, S.J., Foley, J., Bradbury, J.A., Zeldin, D.C. and Goldstein, J.A. 2004. Cyp2c44, a new murine Cyp2c that metabolizes arachidonic acid to unique stereospecific products. *J. Pharmacol. Exp. Ther.* 310: 845-854.
6. Wang, H., Zhao, Y., Bradbury, J.A., Graves, J.P., Foley, J., Blaisdell, J.A., Goldstein, J.A. and Zeldin, D.C. 2004. Cloning, expression, and characterization of three new mouse cytochrome p450 enzymes and partial characterization of their fatty acid oxidation activities. *Mol. Pharmacol.* 65: 1148-1158.

CHROMOSOMAL LOCATION

Genetic locus: Cyp2c44 (mouse) mapping to 19 C3.

PRODUCT

Cyp2c44 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 Cyp2c44 shRNA Plasmid (m): sc-142681-SH and Cyp2c44 shRNA (m) Lentiviral Particles: sc-142681-V as alternate gene silencing products.

For independent verification of Cyp2c44 (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-142681A, sc-142681B and sc-142681C.

PROTOCOLS

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

Cyp2c44 siRNA (m) is recommended for the inhibition of Cyp2c44 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 Cyp2c44 gene expression knockdown using RT-PCR Primer: Cyp2c44 (m)-PR: sc-142681-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.