SANTA CRUZ BIOTECHNOLOGY, INC.

CYP2D26 siRNA (m): sc-142695

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. CYP2D26 (cytochrome P450, family 2, subfamily d, polypeptide 26) is a 500 amino acid peripheral membrane protein that localizes to the endoplasmic reticulum and the microsome and is a member of the cytochrome P450 family. In liver microsome, CYP2D26 utilizes heme groups as cofactors and functions as a heme-thiolate monooxygenase that is involved in NADPH-dependent electron transport and is able to oxidize several compounds, including steroids, fatty acids, and xenobiotics. CYP2D26 is encoded by a gene located on mouse chromosome 15 E1.

REFERENCES

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4. Zhang, W.Y., et al. 2009. Expression and functional analysis of CYP2D6.24, CYP2D6.26, CYP2D6.27, and CYP2D7 isozymes. Drug Metab. Dispos. 37: 1-4.
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7. Wojtczak, A. and Skretkowicz, J. 2009. Clinical significance of some genetic polymorphisms of cytochrome P-450 subfamilies CYP2D, CYP2E and CYP3A—part II. Pol. Merkur. Lekarski. 27: 166-169.

CHROMOSOMAL LOCATION

Genetic locus: Cyp2d26 (mouse) mapping to 15 E1.

PRODUCT

CYP2D26 siRNA (m) is a pool of 2 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 CYP2D26 shRNA Plasmid (m): sc-142695-SH and CYP2D26 shRNA (m) Lentiviral Particles: sc-142695-V as alternate gene silencing products.

For independent verification of CYP2D26 (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-142695A and sc-142695B.

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

CYP2D26 siRNA (m) is recommended for the inhibition of CYP2D26 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 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 CYP2D26 gene expression knockdown using RT-PCR Primer: CYP2D26 (m)-PR: sc-142695-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.

PROTOCOLS

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