SANTA CRUZ BIOTECHNOLOGY, INC.

Cyp3a57 siRNA (m): sc-142718

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, including Cyp1, Cyp2 and Cyp3, based on their sequence similarities. In mice, there are ten Cyp3 genes which encode proteins that are designated Cyp3a11, Cyp3a13, Cyp3a16, Cyp3a25, Cyp39a1, Cyp3a41a, Cyp3a41b, Cyp3a44, Cyp3a57 and Cyp3a59. Most of the mouse Cyp3 proteins are localized to the endoplasmic reticulum and function to catalyze reactions related to the synthesis, degradation and detoxification of various compounds.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Cyp3a57 (mouse) mapping to 5 G2.

PRODUCT

Cyp3a57 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 Cyp3a57 shRNA Plasmid (m): sc-142718-SH and Cyp3a57 shRNA (m) Lentiviral Particles: sc-142718-V as alternate gene silencing products.

For independent verification of Cyp3a57 (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-142718A and sc-142718B.

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

Cyp3a57 siRNA (m) is recommended for the inhibition of Cyp3a57 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 Cyp3a57 gene expression knockdown using RT-PCR Primer: Cyp3a57 (m)-PR: sc-142718-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.