SANTA CRUZ BIOTECHNOLOGY, INC.

FMO2 siRNA (h): sc-75043

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Flavin containing monooxygenase family consists of five gene products, FMO1-5, that are major enzymatic oxidants involved in the metabolism of various therapeutics. FMO2 (flavin containing monooxygenase 2 (non-functional)), also known as FMO1B1, dimethylaniline monooxygenase [N-oxide-forming] 2 or pulmonary flavin-containing monooxygenase 2, is a 535 amino acid protein that is expressed in lung and localizes to microsomal and endoplasmic reticulum membranes. A member of the FMO family, FMO2 catalyzes S-oxidation of methimazole and N-oxidation of various primary alkylamines into their oximes. The gene encoding FMO2 maps to human chromosome 1, forming a cluster with the genes for FMO1, FMO3 and FMO4.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: FMO2 (human) mapping to 1q24.3.

PRODUCT

FMO2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see FMO2 shRNA Plasmid (h): sc-75043-SH and FMO2 shRNA (h) Lentiviral Particles: sc-75043-V as alternate gene silencing products.

For independent verification of FMO2 (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-75043A, sc-75043B and sc-75043C.

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

FMO2 siRNA (h) is recommended for the inhibition of FMO2 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 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 FMO2 gene expression knockdown using RT-PCR Primer: FMO2 (h)-PR: sc-75043-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.