SANTA CRUZ BIOTECHNOLOGY, INC.

FAR2 siRNA (m): sc-145071

BACKGROUND

The conversion of fatty acids to fatty alcohols is required for the synthesis of wax monoesters and ether lipids. Fatty acyl-CoA reductase 2 (FAR2), also known as male sterility domain-containing protein 1 (MLSTD1), is a 515 amino acid protein that catalyzes the reduction of saturated fatty acyl-CoA with chain length C16, C18 and C10-C14 to fatty alcohols. FAR2, which is a member of the fatty acyl-CoA reductase family, is a multi-pass membrane protein and has been shown to localize to the peroxisome and the endoplasmic reticulum. The highest levels of FAR2 were detected in brain and eyelid, which contains wax-laden meibomian glands. The gene encoding FAR2 is located on chromosome 12, which comprises nearly 4.5% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Far2 (mouse) mapping to 6 G3.

PRODUCT

FAR2 siRNA (m) is a target-specific 19-25 nt siRNA 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 FAR2 shRNA Plasmid (m): sc-145071-SH and FAR2 shRNA (m) Lentiviral Particles: sc-145071-V as alternate gene silencing 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 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

FAR2 siRNA (m) is recommended for the inhibition of FAR2 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 FAR2 gene expression knockdown using RT-PCR Primer: FAR2 (m)-PR: sc-145071-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.