SANTA CRUZ BIOTECHNOLOGY, INC.

Alox12e siRNA (m): sc-141027

BACKGROUND

Alox12e, also known as Arachidonate 12-lipoxygenase epidermal-type or 12-LOX, is a 662 amino acid protein in the lipoxygenase family. Alox12e contains one lipoxygenase domain and one PLAT domain and is primarily expressed in the differentiated keratinocytes of the epidermis and around the root sheath and bulb of hair follicles in mice. Alox12e is also expressed in the conjunctiva of the eyelid and in cells of Meibomian and sebaceous glands in mice. As a non-heme iron-containing dioxygenase, Alox12e is thought to convert arachidonic acid to (12S)-hydroperoxyeicosatetraenoic acid, also known as (12S)-HPETE. The Alox12e gene is conserved in chimpanzee, Rhesus monkey, canine, bovine, and rat, and shows 60% homology with the mouse genes Alox12p and Alox12l. The mouse Alox12e gene is located on chromosome 11.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Alox12e (mouse) mapping to 11 B3.

PRODUCT

Alox12e 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 Alox12e shRNA Plasmid (m): sc-141027-SH and Alox12e shRNA (m) Lentiviral Particles: sc-141027-V as alternate gene silencing products.

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 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

Alox12e siRNA (m) is recommended for the inhibition of Alox12e 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 Alox12e gene expression knockdown using RT-PCR Primer: Alox12e (m)-PR: sc-141027-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.