SANTA CRUZ BIOTECHNOLOGY, INC.

Keratin 31 siRNA (m): sc-146409

BACKGROUND

The Keratin multigene family is made of "soft" epithelial cytokeratins and "hard" hair Keratins. While the epithelial cytokeratins are involved in the layering and formation of epithelia, the hair Keratins are responsible for creating nails and hair. There are two types of Keratins: the acidic class I Keratin proteins and the basic/neutral class II Keratin proteins. As a type I hair Keratin protein, Keratin 31, also known as KRT31, HA1, HHA1 (hair Keratin, type I Ha1), K31 or KRTHA1, contains 416 amino acids and is expressed in scalp but not hairless skin. In growing hair, Keratin 31 localizes to keratinocytes of the hair cortex but is not present in medulla or inner root sheath. The gene encoding Keratin 31 maps to human chromosome 17q21.2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Krt31 (mouse) mapping to 11 D.

PROTOCOLS

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

PRODUCT

Keratin 31 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 Keratin 31 shRNA Plasmid (m): sc-146409-SH and Keratin 31 shRNA (m) Lentiviral Particles: sc-146409-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

Keratin 31 siRNA (m) is recommended for the inhibition of Keratin 31 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 Keratin 31 gene expression knockdown using RT-PCR Primer: Keratin 31 (m)-PR: sc-146409-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.