SANTA CRUZ BIOTECHNOLOGY, INC.

Keratin 27 siRNA (m): sc-146408

BACKGROUND

Keratin 27 (K27), also known as KRT27, Cytokeratin-27 (CK-27), Keratin-25C (K25C) or KRT25C, is a 459 amino acid cytoplasmic protein that belongs to the intermediate filament family. Existing as a heterotetramer of two type I and two type II keratins, Keratin 27 interacts with Cytokeratin 6 to form filaments. Keratin 27 is essential for the formation of keratin intermediate filaments in the inner root sheath (irs), and for the proper assembly of type I and type II keratin protein complexes. Keratin 27 is strongly expressed in skin and scalp. In the hair follicle, Keratin 27 is expressed in Henle layer, Huxley layer and in the inner root sheath cuticle of the hair follicle. Keratin 27 expression extends from the bulb region up to the point of differentiation into the three layers. In addition, Keratin 27 is present in the medulla of beard hair. The gene that encodes Keratin 27 consists of approximately 5,727 bases and maps to human chromosome 17q21.2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Krt27 (mouse) mapping to 11 D.

PROTOCOLS

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

PRODUCT

Keratin 27 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 27 shRNA Plasmid (m): sc-146408-SH and Keratin 27 shRNA (m) Lentiviral Particles: sc-146408-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 27 siRNA (m) is recommended for the inhibition of Keratin 27 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 27 gene expression knockdown using RT-PCR Primer: Keratin 27 (m)-PR: sc-146408-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.