SANTA CRUZ BIOTECHNOLOGY, INC.

Loricrin siRNA (h): sc-60960

BACKGROUND

Involucrin, Loricrin and Sciellin are components of the keratinocyte cornified envelope, which is formed beneath the inner surface of the cell membrane and replaces the plasma membrane during terminal differentiation. Involucrin first appears in the cell cytosol, but ultimately becomes cross-linked to membrane proteins by transglutaminase. Loricrin localizes to the cytoplasm and the nucleus and is a substrate of transglutaminases. Mutations in LOR, the gene encoding Loricrin, may be involved in the skin disease Loricrin keratoderma (LK), an ichthyotic variant of Vohwinkel syndrome (VS). LK is characterized by progressive symmetric erythrokeratoderma or congenital ichthyosiform erythroderma. Clinical symptoms of LK include hyperkeratosis of the soles and palms along with digital constriction.

REFERENCES

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6. Takahashi, M., et al. 2005. Large haematoxylin-stainable keratohyaline granules in solar keratoses: immunohistochemical comparison using anti-Ted-H-1 antibody and anti-Loricrin antibody. Br. J. Dermatol. 153: 976-980.
7. Backendorf, C., et al. 2005. Repair characteristics and differentiation propensity of long-term cultures of epidermal keratinocytes derived from normal and NER-deficient mice. DNA Repair 4: 1325-1336.
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CHROMOSOMAL LOCATION

Genetic locus: LOR (human) mapping to 1q21.3.

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.

PRODUCT

Loricrin 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 Loricrin shRNA Plasmid (h): sc-60960-SH and Loricrin shRNA (h) Lentiviral Particles: sc-60960-V as alternate gene silencing products.

For independent verification of Loricrin (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-60960A, sc-60960B and sc-60960C.

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

Loricrin siRNA (h) is recommended for the inhibition of Loricrin 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 Loricrin gene expression knockdown using RT-PCR Primer: Loricrin (h)-PR: sc-60960-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.