SANTA CRUZ BIOTECHNOLOGY, INC.

Dermokine siRNA (m): sc-77134

BACKGROUND

Dermokine, also known as DMKN, ZD52F10 or UNQ729, is a 476 amino acid secreted protein that belongs to the dermokine family and exists as 15 alternatively spliced isoforms, the most notable of which are designated α and β. Existing as a homo-oligomer that can either homodimerize or homotrimerize, Dermokine is expressed in the epidermis, as well as in the epithelia of the lung and small intestine where it is thought to function as a regulator of keratinocyte differentiation, possibly playing a role in inflammatory responses. The gene encoding Dermokine maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (Fc Rs).

REFERENCES

1. Matsui, T., Hayashi-Kisumi, F., Kinoshita, Y., Katahira, S., Morita, K., Miyachi, Y., Ono, Y., Imai, T., Tanigawa, Y., Komiya, T. and Tsukita, S. 2004. Identification of novel keratinocyte-secreted peptides dermokine-α/-β and a new stratified epithelium-secreted protein gene complex on human chromosome 19q13.1. Genomics 84: 384-397.
2. Toulza, E., Galliano, M.F., Jonca, N., Gallinaro, H., Mεchin, M.C., Ishida-Yamamoto, A., Serre, G. and Guerrin, M. 2006. The human dermokine gene: description of novel isoforms with different tissue-specific expression and subcellular location. J. Invest. Dermatol. 126: 503-506.
3. Bazzi, H., Fantauzzo, K.A., Richardson, G.D., Jahoda, C.A. and Christiano, A.M. 2007. Transcriptional profiling of developing mouse epidermis reveals novel patterns of coordinated gene expression. Dev. Dyn. 236: 961-970.
4. Toulza, E., Mattiuzzo, N.R., Galliano, M.F., Jonca, N., Dossat, C., Jacob, D., de Daruvar, A., Wincker, P., Serre, G. and Guerrin, M. 2007. Large-scale identification of human genes implicated in epidermal barrier function. Genome Biol. 8: R107.
5. Naso, M.F., Liang, B., Huang, C.C., Song, X.Y., Shahied-Arruda, L., Belkowski, S.M., D'Andrea, M.R., Polkovitch, D.A., Lawrence, D.R., Griswold, D.E., Sweet, R.W. and Amegadzie, B.Y. 2007. Dermokine: an extensively differentially spliced gene expressed in epithelial cells. J. Invest. Dermatol. 127: 1622-1631.

CHROMOSOMAL LOCATION

Genetic locus: Dmkn (mouse) mapping to 7 B1.

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

Dermokine siRNA (m) is a pool of 2 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 Dermokine shRNA Plasmid (m): sc-77134-SH and Dermokine shRNA (m) Lentiviral Particles: sc-77134-V as alternate gene silencing products.

For independent verification of Dermokine (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-77134A and sc-77134B.

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

Dermokine siRNA (m) is recommended for the inhibition of Dermokine 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 Dermokine gene expression knockdown using RT-PCR Primer: Dermokine (m)-PR: sc-77134-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.