SANTA CRUZ BIOTECHNOLOGY, INC.

# LIPK siRNA (h): sc-90704

## BACKGROUND

Lipolysis is the biochemical pathway responsible for the catabolism of triacylglycerol (TAG) stored in cellular lipid droplets. The hydrolytic cleavage of TAG generates non-esterified fatty acids, which are subsequently used as energy substrates, essential precursors for lipid and membrane synthesis, or mediators in cell signaling processes. Consistent with its central importance in lipid and energy homeostasis, lipolysis occurs in essentially all tissues and cell types. At least six families of mammalian acid lipases catalyze the hydrolysis of triglycerides in the body, designated as LIPA (lysosomal), LIPF (gastric), LIPJ (testis) and LIPK, LIPM and LIPN (epidermal), which belong to the AB hydrolase superfamily. LIPK is exclusively expressed in the epidermis within the granular keratinocyte and plays a highly specific role in the last step of keratinocyte differentiation.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: LIPK (human) mapping to 10q23.31.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

LIPK 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 LIPK shRNA Plasmid (h): sc-90704-SH and LIPK shRNA (h) Lentiviral Particles: sc-90704-V as alternate gene silencing products.

For independent verification of LIPK (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-90704A, sc-90704B and sc-90704C.

## 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

LIPK siRNA (h) is recommended for the inhibition of LIPK 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 LIPK gene expression knockdown using RT-PCR Primer: LIPK (h)-PR: sc-90704-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

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