SANTA CRUZ BIOTECHNOLOGY, INC.

IL-4I1 siRNA (h): sc-97737

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The interleukins are a broad family of well characterized cytokines, primarily of hematopoietic cell origin. As new cytokines are molecularly characterized, they are assigned an IL number to maintain a standard nomenclature. The interleukins are secreted by immune cells (mainly macrophages, B-cells or T-cells) that regulate a wide range of immune system functions. The functions of different interleukins vary from regulation of inflammatory and immune responses, functioning as autocrine factors and regulation and/or inhibition of other interleukins. IL-4I1 (interleukin 4 induced 1), known alternatively as LAO (L-amino-acid oxidase), hFIG1 (protein Fig-1) or UNQ636/PRO1265, is a 567 amino acid protein that belongs to the flavin monoamine oxidase family and FIG1 subfamily. Induced by IL-4, IL-4I1 utilizes FAD as a cofactor and may play a role in lysosomal antigen processing. Localizing to the lysosome, IL-4I1 exists as two distinct isoforms, designated isoform 1 and 2. Isoform 1 is found predominantly in immune tissue. The IL-4I1 gene contains a conserved region which may be involved in the catalysis of flavin adenine dinucleotide cofactors.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: IL4I1 (human) mapping to 19q13.33.

PRODUCT

IL-4I1 siRNA (h) 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 IL-4I1 shRNA Plasmid (h): sc-97737-SH and IL-4I1 shRNA (h) Lentiviral Particles: sc-97737-V as alternate gene silencing products.

For independent verification of IL-4I1 (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-97737A and sc-97737B.

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

IL-4I1 siRNA (h) is recommended for the inhibition of IL-4I1 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 IL-4I1 gene expression knockdown using RT-PCR Primer: IL-4I1 (h)-PR: sc-97737-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.

PROTOCOLS

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