

IL-25 siRNA (h): sc-105567

BACKGROUND

The interleukins are a broad family of well characterized cytokines, primarily of hematopoietic cell origin. Cytokines are small, soluble proteins with pleiotropic effects on a variety of cell types. Cytokines have a regulatory function over the immune system and mediate aspects of inflammatory response. IL-25 (also called SF20/IL-25) is a secreted bone marrow stroma-derived growth factor cytokine that is derived from Th2 T-cells. IL-25 belongs to the IL-17 cytokine family and is capable of amplifying allergic type inflammatory responses by its actions on other cell types. IL-25 binds to mouse thymic shared antigen-1 and supports lymphoid cell proliferation. Infusion of mice with IL-25 induces IL-4, IL-5, and IL-13 gene expression. IL-25 induced mice also develop epithelial cell hyperplasia, increased mucus secretion, and airway hyperreactivity, suggesting that IL-25 may be an important mediator of allergic disease via production of IL-4, IL-5, IL-13 and eotaxin.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: C19orf10 (human) mapping to 19p13.3.

PRODUCT

IL-25 siRNA (h) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see IL-25 shRNA Plasmid (h): sc-105567-SH and IL-25 shRNA (h) Lentiviral Particles: sc-105567-V as alternate gene silencing products.

RESEARCH USE

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

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

IL-25 siRNA (h) is recommended for the inhibition of IL-25 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 μ M in 66 μ l. 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-25 gene expression knockdown using RT-PCR Primer: IL-25 (h)-PR: sc-105567-PR (20 μ l). 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.