

IFN- α 4 siRNA (h): sc-105559

BACKGROUND

Interferons (IFNs) are a group of pleiotropic cytokines that were originally discovered as a result of their antiviral activity. IFNs exert their effects by binding to specific receptors on target cells. The type I interferons, α and β , are a group of structurally and functionally related proteins that are induced by either viruses or double stranded RNA, and defined by their ability to confer an antiviral state in cells. IFN- α 4 (interferon α -4), also known as INFA4, interferon α -4B, interferon α -M1 or interferon α -76, is a 189 amino acid secreted protein that possesses antiviral activity and is produced by macrophages. The gene encoding IFN- α 4 maps to human chromosome 9p21.3 and mouse chromosome 4 C4.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: IFNA4 (human) mapping to 9p21.3.

PRODUCT

IFN- α 4 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see IFN- α 4 shRNA Plasmid (h): sc-105559-SH and IFN- α 4 shRNA (h) Lentiviral Particles: sc-105559-V as alternate gene silencing products.

For independent verification of IFN- α 4 (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-105559A and sc-105559B.

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

IFN- α 4 siRNA (h) is recommended for the inhibition of IFN- α 4 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 IFN- α 4 gene expression knockdown using RT-PCR Primer: IFN- α 4 (h)-PR: sc-105559-PR (20 μ l). 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.