SANTA CRUZ BIOTECHNOLOGY, INC.

NK10 siRNA (m): sc-149983

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NK10, also known as ZFP90 (zinc finger protein 90 homolog) or ZNF756 (zinc finger protein 756), is a 636 amino acid nuclear protein that belongs to the Krüppel C_2H_2-type zinc-finger protein family, and contains 13 C_2H_2-type zinc fingers and one KRAB domain. Acting as a potential repressor or silencer protein, NK10 most likely exerts its repressing activity upon binding to DNA. NK10 may be involved in proper spermatogenesis by repressing the expression of genes unnecessary or incompatible with the maintenance of a haploid cell state. The gene that encodes NK10 consists of approximately 27,379 bases and maps to human chromosome 16q22.1. Encoding over 900 genes and consisting of approximately 90 million base pairs, chromosome 16 makes up nearly 3% of the human genome and is associated with a variety of genetic disorders, such as giant axonal neuropathy, Rubinstein-Taybi syndrome and Crohn's disease. An association with systemic lupus erythematosis and a number of other autoimmune disorders with the pericentromeric region of chromosome 16 has led to the identification of SLC5A11 as a potential autoimmune modifier.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Zfp90 (mouse) mapping to 8 D3.

RESEARCH USE

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

PRODUCT

NK10 siRNA (m) 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 NK10 shRNA Plasmid (m): sc-149983-SH and NK10 shRNA (m) Lentiviral Particles: sc-149983-V as alternate gene silencing products.

For independent verification of NK10 (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-149983A, sc-149983B and sc-149983C.

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

NK10 siRNA (m) is recommended for the inhibition of NK10 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 NK10 gene expression knockdown using RT-PCR Primer: NK10 (m)-PR: sc-149983-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.