

## I $\kappa$ B- $\delta$ siRNA (h): sc-97928

### BACKGROUND

I $\kappa$ B- $\delta$  (I-kappa-B-delta), also known as NFKBID (nuclear factor of  $\kappa$  light polypeptide gene enhancer in B-cells inhibitor,  $\delta$ ), MGC11314, IKBNS or TA-NFKBH (T-cell activation NF $\kappa$ B-like protein), is a 313 amino acid protein that belongs to the NF $\kappa$ B inhibitor family. I $\kappa$ B- $\delta$  plays a role in the regulation of both inflammatory responses and cytokine, IL-2 and IL-6 expression via NF $\kappa$ B activity. Existing as three alternatively spliced isoforms, I $\kappa$ B- $\delta$  associates with RelB, NF $\kappa$ B p50 and NF $\kappa$ B p65 in nucleus, and is thought to assist in thymocyte selection in response to TCR induction. The gene encoding I $\kappa$ B- $\delta$  maps to human chromosome 19q13.12, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families and Fc receptors (FcRs).

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: NFKBID (human) mapping to 19q13.12.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

### PRODUCT

I $\kappa$ B- $\delta$  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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see I $\kappa$ B- $\delta$  shRNA Plasmid (h): sc-97928-SH and I $\kappa$ B- $\delta$  shRNA (h) Lentiviral Particles: sc-97928-V as alternate gene silencing products.

For independent verification of I $\kappa$ B- $\delta$  (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-97928A, sc-97928B and sc-97928C.

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

### APPLICATIONS

I $\kappa$ B- $\delta$  siRNA (h) is recommended for the inhibition of I $\kappa$ B- $\delta$  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  $\mu$ M in 66  $\mu$ 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 I $\kappa$ B- $\delta$  gene expression knockdown using RT-PCR Primer: I $\kappa$ B- $\delta$  (h)-PR: sc-97928-PR (20  $\mu$ 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.