SANTA CRUZ BIOTECHNOLOGY, INC.

NFKBIL2 siRNA (m): sc-149944

BACKGROUND

NFκB, a pleiotropic transcription factor, is present in almost all cell types and is involved in many biological processes including inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NFκB is a homo- or heterodimeric complex formed by the Rel-like domain-containing proteins RELA/p65, RELB, NFKB1/p105, NFKB1/p50, REL and NFKB2/p52. This complex is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. The NFκB inhibitor-like protein 2 (NFKBIL2), also known as IKBR (inhibitor of κB-related protein), is a 1,378 amino acid cytoplasmic protein expressed in tracheal epithelial cells, heart and skeletal muscle that functions as either a negative or positive transcription regulator of NFκB transcription activation. NFKBIL2 exists as two alternatively spliced isoforms and contains three ANK repeats, seven LRR (leucine-rich) repeats and eight TPR repeats.

REFERENCES

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2. Deloukas, P. and van Loon, A.P. 1993. Genomic organization of the gene encoding the p65 subunit of NFκB: multiple variants of the p65 protein may be generated by alternative splicing. Hum. Mol. Genet. 2: 1895-1900.
3. Ray, P., et al. 1995. Cloning of a differentially expressed I κ B-related protein. J. Biol. Chem. 270: 10680-10685.
4. Ray, P., et al. 1997. Selective upregulation of cytokine-induced RANTES gene expression in lung epithelial cells by overexpression of IκBR. J. Biol. Chem. 272: 20191-20197.
5. Norman, D.A. and Barton, P.J. 2000. Isolation, sequence, and chromosomal localisation of the human IκBR gene (NFKBIL2). Ann. Hum. Genet. 64: 15-23.
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CHROMOSOMAL LOCATION

Genetic locus: Tonsl (mouse) mapping to 15 D3.

PRODUCT

NFKBIL2 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 NFKBIL2 shRNA Plasmid (m): sc-149944-SH and NFKBIL2 shRNA (m) Lentiviral Particles: sc-149944-V as alternate gene silencing products.

For independent verification of NFKBIL2 (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-149944A, sc-149944B and sc-149944C.

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

NFKBIL2 siRNA (m) is recommended for the inhibition of NFKBIL2 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 NFKBIL2 gene expression knockdown using RT-PCR Primer: NFKBIL2 (m)-PR: sc-149944-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.