

IKIP siRNA (m): sc-146201

BACKGROUND

IKIP (Inhibitor of nuclear factor κ -B kinase-interacting protein, IKK-interacting protein) is a single-pass membrane protein that shares a common promoter with APAF1. APAF1 and IKIP are both induced by X irradiation, however, the two gene products are transcribed in different directions. The IKIP gene is believed to be a target for p53 as expression of IKIP has been shown to promote apoptosis. IKIP has four known isoforms, three of which are found traversing the endoplasmic reticulum membrane. IKIP isoform 4 has a deletion of the transmembrane region which leads to a homogenous distribution of the protein within the cell. The IKIP gene products are expressed in vascular endothelial cells, while the isoform 4 has also been detected in lung, kidney, spleen, thymus and skeletal muscle.

REFERENCES

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3. Hofer-Warbinek, R., et al. 2004. A highly conserved proapoptotic gene, IKIP, located next to the APAF1 gene locus, is regulated by p53. *Cell Death Differ.* 11: 1317-1325.
4. Avila, C.M., et al. 2009. Structural insights into IKK β inhibition by natural products staurosporine and quercetin. *Bioorg. Med. Chem. Lett.* 19: 6907-6910.
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7. Baima, E.T., et al. 2010. Novel insights into the cellular mechanisms of the anti-inflammatory effects of NF κ B essential modulator (NEMO) binding domain peptides. *J. Biol. Chem.* 285: 13498-13506.
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CHROMOSOMAL LOCATION

Genetic locus: Ikkip (mouse) mapping to 10 C2.

PRODUCT

IKIP siRNA (m) 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 IKIP shRNA Plasmid (m): sc-146201-SH and IKIP shRNA (m) Lentiviral Particles: sc-146201-V as alternate gene silencing products.

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

IKIP siRNA (m) is recommended for the inhibition of IKIP 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 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.

GENE EXPRESSION MONITORING

IKIP (E-3): sc-515346 is recommended as a control antibody for monitoring of IKIP gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor IKIP gene expression knockdown using RT-PCR Primer: IKIP (m)-PR: sc-146201-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.