

ZIK1 siRNA (h): sc-97601

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which are thought to interact with KAP1, thereby recruiting histone modifying proteins. ZIK1 (zinc finger protein interacting with K protein 1 homolog), also known as ZNF762, is a 487 amino acid nuclear protein belonging to the Krüppel C₂H₂-type zinc-finger protein family. Expressed at high levels in gastric glands, and at low levels in colon and small intestine, ZIK1 is silenced through promoter methylation in gastric glands with intestinal metaplasia. ZIK1 is considered a transcriptional repressor that interacts with hnRNP K. ZIK1 contains nine C₂H₂-type zinc fingers and a KRAB domain. Three isoforms of ZIK1 are produced by alternative splicing events.

REFERENCES

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8. Oka, D., et al. 2009. The presence of aberrant DNA methylation in non-carcinoma esophageal mucosae in association with smoking history: a target for risk diagnosis and prevention of esophageal cancers. *Cancer* 115: 3412-3426.
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CHROMOSOMAL LOCATION

Genetic locus: ZIK1 (human) mapping to 19q13.43.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

ZIK1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ZIK1 shRNA Plasmid (h): sc-97601-SH and ZIK1 shRNA (h) Lentiviral Particles: sc-97601-V as alternate gene silencing products.

For independent verification of ZIK1 (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-97601A, sc-97601B and sc-97601C.

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

ZIK1 siRNA (h) is recommended for the inhibition of ZIK1 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 ZIK1 gene expression knockdown using RT-PCR Primer: ZIK1 (h)-PR: sc-97601-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.