SANTA CRUZ BIOTECHNOLOGY, INC.

Hipk4 siRNA (m): sc-145970

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The Power to Question

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. The homeodomain-interacting protein kinases (HIPK1, HIPK2, HIPK3 and HIPK4) comprise a subfamily of kinase proteins that have a conserved protein kinase domain, as well as a separate domain that interacts with homeoproteins. Hipk4 (Homeodomain-interacting protein kinase 4) is a 616 amino acid protein that localizes to the cytoplasm and exists as two isoforms that are produced by alternative splicing events. Like other members of the HIPK family, Hipk4 functions as a protein kinase that catalyzes the ATP-dependent phosphorylation of target proteins and is thought to act as a corepressor of target transcription factors.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Hipk4 (mouse) mapping to 7 A3.

PRODUCT

Hipk4 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 Hipk4 shRNA Plasmid (m): sc-145970-SH and Hipk4 shRNA (m) Lentiviral Particles: sc-145970-V as alternate gene silencing products.

For independent verification of Hipk4 (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-145970A, sc-145970B and sc-145970C.

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

Hipk4 siRNA (m) is recommended for the inhibition of Hipk4 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 Hipk4 gene expression knockdown using RT-PCR Primer: Hipk4 (m)-PR: sc-145970-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.