SANTA CRUZ BIOTECHNOLOGY, INC.

nm23-H6 siRNA (m): sc-75934

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

nm23-H6, also known as NME6 (nucleoside diphosphate kinase 6), is a 186 amino acid protein that localizes to the mitochondrion and belongs to the NDK family of kinases. Expressed ubiquitously with highest expression in ovary, kidney, spleen, prostate and intestine, nm23-H6 uses magnesium as a cofactor to catalyze the ATP-dependent creation of nucleoside triphosphates and, via this catalytic activity, is thought t be involved in cell growth, cell cycle progression and apoptotic control. The gene encoding nm23-H6 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

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5. Kimura, N., Shimada, N., Fukuda, M., Ishijima, Y., Miyazaki, H., Ishii, A., Takagi, Y. and Ishikawa, N. 2000. Regulation of cellular functions by nucleoside diphosphate kinases in mammals. J. Bioenerg. Biomembr. 32: 309-315.
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CHROMOSOMAL LOCATION

Genetic locus: Nme6 (mouse) mapping to 9 F2.

PRODUCT

nm23-H6 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 nm23-H6 shRNA Plasmid (m): sc-75934-SH and nm23-H6 shRNA (m) Lentiviral Particles: sc-75934-V as alternate gene silencing products.

For independent verification of nm23-H6 (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-75934A, sc-75934B and sc-75934C.

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

nm23-H6 siRNA (m) is recommended for the inhibition of nm23-H6 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 nm23-H6 gene expression knockdown using RT-PCR Primer: nm23-H6 (m)-PR: sc-75934-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.