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SANTA CRUZ BIOTECHNOLOGY, INC.

NAP1L3 siRNA (m): sc-149825

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Proper nucleosome assembly is critical for compacting DNA into chromatin. NAP1 (nucleosome assembly protein 1) is a nuclear protein that acts as a transcriptional regulator and functions in nucleosome assembly. NAP1L3 (nucleosome assembly protein 1-like 3), also known as MB20 or NPL3, is a 506 amino acid nuclear protein belonging to the nucleosome assembly protein (NAP) family. Expressed in human brain with weak expression in heart, NAP1L3 is encoded by a gene mapping to human chromosome Xq21.32, which is in close proximity to a region closely linked to several X-linked mental retardation syndromes. Containing nearly 153 million base pairs and housing over 1,000 genes, chromosome X acts in conjunction with chromosome Y to determine sex. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

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CHROMOSOMAL LOCATION

Genetic locus: Nap1l3 (mouse) mapping to X E3.

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.

PRODUCT

NAP1L3 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 NAP1L3 shRNA Plasmid (m): sc-149825-SH and NAP1L3 shRNA (m) Lentiviral Particles: sc-149825-V as alternate gene silencing products.

For independent verification of NAP1L3 (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-149825A, sc-149825B and sc-149825C.

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

NAP1L3 siRNA (m) is recommended for the inhibition of NAP1L3 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 NAP1L3 gene expression knockdown using RT-PCR Primer: NAP1L3 (m)-PR: sc-149825-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.