

NAP1L4 siRNA (h): sc-75873

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. NAP1L4 (nucleosome assembly protein 1-like 4), also known as NAP2 (nucleosome assembly protein 2) or NAP2L, is a 375 amino acid protein that belongs to the nucleosome assembly protein (NAP) family. Localized to the nucleus, NAP1L4 is ubiquitously expressed but is found at highest levels in testis. NAP1L4 interacts with both core and linker histones, and is phosphorylated on multiple amino acid residues. The gene encoding NAP1L4 maps to human chromosome 11p15.4, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that map to chromosome 11.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NAP1L4 (human) mapping to 11p15.4.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

NAP1L4 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 NAP1L4 shRNA Plasmid (h): sc-75873-SH and NAP1L4 shRNA (h) Lentiviral Particles: sc-75873-V as alternate gene silencing products.

For independent verification of NAP1L4 (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-75873A, sc-75873B and sc-75873C.

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

NAP1L4 siRNA (h) is recommended for the inhibition of NAP1L4 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 NAP1L4 gene expression knockdown using RT-PCR Primer: NAP1L4 (h)-PR: sc-75873-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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