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SANTA CRUZ BIOTECHNOLOGY, INC.

NAP1L2 siRNA (m): sc-149824

BACKGROUND

Proper nucleosome assembly is critical for compacting DNA into chromatin. In human and mouse there are five protein-coding genes which comprise the nucleosome assembly protein (NAP) family. NAP1L1 (NAP1) and NAP1L4 (NAP2) are ubiquitously expressed family members which have been the most extensively studied. The remaining three family members, NAP1L2, NAP1L3 and NAP1L5 are neuron-specific nucleosome assembly proteins translated from intronless genes which are monoallelically expressed. NAP1L2 (nucleosome assembly protein 1-like 2), also known as BPX (brain specific protein, X-linked), is a 460 amino acid protein containing acidic domains which are thought to mediate histone interactions. NAP1L2 binds to chromatin and interacts with Histones H3 and H4. The function of NAP1L2 is not clearly defined although evidence suggests that NAP1L2 influences histone acetylation and therefore may play a significant role in regulating transcription in developing neurons.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Nap1l2 (mouse) mapping to X D.

PROTOCOLS

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

PRODUCT

NAP1L2 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 NAP1L2 shRNA Plasmid (m): sc-149824-SH and NAP1L2 shRNA (m) Lentiviral Particles: sc-149824-V as alternate gene silencing products.

For independent verification of NAP1L2 (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-149824A, sc-149824B and sc-149824C.

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

NAP1L2 siRNA (m) is recommended for the inhibition of NAP1L2 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 NAP1L2 gene expression knockdown using RT-PCR Primer: NAP1L2 (m)-PR: sc-149824-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.