SANTA CRUZ BIOTECHNOLOGY, INC.

NAP125 siRNA (h): sc-94668

BACKGROUND

NAP125, also known as NCKAP1 (NCK-associated protein 1), p125Nap1 or membrane-associated protein HEM-2, is a 1,128 amino acid single pass membrane protein that exists as two alternatively spliced isoforms and belongs to the HEM-1/HEM-2 family. While widely expressed, NAP125 is found at highest levels in heart, brain and skeletal muscle where it regulates Rac-dependent actin remodeling as part of a lamellipodial complex with WAVE2, Abi-1 and CYFIP1. NAP125 localizes to the cytoplasmic side of lamellipodium membrane and is encoded by a gene that maps to human chromosome 2q32.1 and mouse chromosome 2 C3. NAP125 expression is markedly reduced in Alzheimer disease (AD)-affected brains, suggesting a possible role in the disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NCKAP1 (human) mapping to 2q32.1.

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

NAP125 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NAP125 shRNA Plasmid (h): sc-94668-SH and NAP125 shRNA (h) Lentiviral Particles: sc-94668-V as alternate gene silencing products.

For independent verification of NAP125 (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-94668A, sc-94668B and sc-94668C.

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

NAP125 siRNA (h) is recommended for the inhibition of NAP125 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 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 NAP125 gene expression knockdown using RT-PCR Primer: NAP125 (h)-PR: sc-94668-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.