SANTA CRUZ BIOTECHNOLOGY, INC.

MOCA siRNA (h): sc-75804

BACKGROUND

MOCA (modifier of cell adhesion), also known as Presenilin-binding protein (PBP) or dedicator of cytokinesis protein 3 (DOCK3), is a 2,030 amino acid cytoplasmic protein belonging to the DOCK family. MOCA interacts with Presenilin proteins and has the ability to stimulate Tau phosphorylation suggesting that MOCA may be involved in Alzheimer disease. MOCA is also thought to be a guanine nucleotide exchange factor (GEF) which activates small GTPases by exchanging bound GDP for free GTP. Analysis of ectopic expression suggests that MOCA may affect the function of small GTPases involved in the regulation of Actin cytoskeleton or cell adhesion receptors. MOCA is localized to the neuropil, and sometimes in pyramidal cells, in normal brains, while in Alzheimer disease brains, MOCA is present in neurofibrillary tangles.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: DOCK3 (human) mapping to 3p21.2.

PRODUCT

MOCA 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 MOCA shRNA Plasmid (h): sc-75804-SH and MOCA shRNA (h) Lentiviral Particles: sc-75804-V as alternate gene silencing products.

For independent verification of MOCA (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-75804A, sc-75804B and sc-75804C.

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

MOCA siRNA (h) is recommended for the inhibition of MOCA 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 MOCA gene expression knockdown using RT-PCR Primer: MOCA (h)-PR: sc-75804-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.