SANTA CRUZ BIOTECHNOLOGY, INC.

MOCA (H-93): sc-135232

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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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4. de Silva, M.G., Elliott, K., Dahl, H.H., Fitzpatrick, E., Wilcox, S., Delatycki, M., Williamson, R., Efron, D., Lynch, M. and Forrest, S. 2003. Disruption of a novel member of a sodium/hydrogen exchanger family and DOCK 3 is associated with an attention deficit hyperactivity disorder-like phenotype. J. Med. Genet. 40: 733-740.
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6. Chen, Q., Chen, T.J., Letourneau, P.C., Costa, L.. and F., Schubert, D. 2005. Modifier of cell adhesion regulates N-cadherin-mediated cell-cell adhesion and neurite outgrowth. J. Neurosci. 25: 281-290.

CHROMOSOMAL LOCATION

Genetic locus: DOCK3 (human) mapping to 3p21.2; Dock3 (mouse) mapping to 9 F1.

SOURCE

MOCA (H-93) is a rabbit polyclonal antibody raised against amino acids 953-1045 mapping within an internal region of MOCA of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

MOCA (H-93) is recommended for detection of MOCA of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MOCA (H-93) is also recommended for detection of MOCA in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MOCA siRNA (h): sc-75804, MOCA siRNA (m): sc-75805, MOCA shRNA Plasmid (h): sc-75804-SH, MOCA shRNA Plasmid (m): sc-75805-SH, MOCA shRNA (h) Lentiviral Particles: sc-75804-V and MOCA shRNA (m) Lentiviral Particles: sc-75805-V.

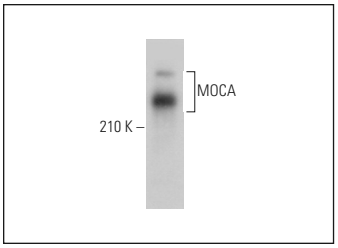
Molecular Weight of MOCA: 233 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MOCA (H-93): sc-135232. Western blot analysis of MOCA expression in U-251-MG whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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