

MARCKS (C-19): sc-6453

BACKGROUND

Myristoylated alanine-rich protein kinase C substrate (MARCKS), also designated 80K or 80K-L, has been identified as a major cellular substrate for protein kinase C. Human MARCKS is a 332 amino acid protein. The plasma membrane bound protein dissociates from the membrane upon phosphorylation by various PKC isoforms. In NIH/3T3 fibroblasts, PKC α and PKC ϵ , but not PKC δ , are responsible for MARCKS phosphorylation. MARCKS has been found to bind calmodulin, Actin and Synapsin and is a filamentous (F) Actin crosslinking protein.

REFERENCES

1. Stumpo, D.J., et al. 1989. Molecular cloning, characterization, and expression of a cDNA encoding the "80 to 87 kDa" myristoylated alanine-rich C kinase substrate: a major cellular substrate for protein kinase C. Proc. Natl. Acad. Sci. USA 86: 4012-4016.
2. Sakai, K., et al. 1989. Isolation of cDNAs encoding a substrate for protein kinase C: nucleotide sequence and chromosomal mapping of the gene for a human 80K protein. Genomics 5: 309-315.

CHROMOSOMAL LOCATION

Genetic locus: MARCKS (human) mapping to 6q22.1.

SOURCE

MARCKS (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MARCKS of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-6453 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

MARCKS (C-19) is recommended for detection of MARCKS of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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). MARCKS (C-19) is also recommended for detection of MARCKS in additional species, including bovine.

Suitable for use as control antibody for MARCKS siRNA (h): sc-35857, MARCKS shRNA Plasmid (h): sc-35857-SH and MARCKS shRNA (h) Lentiviral Particles: sc-35857-V.

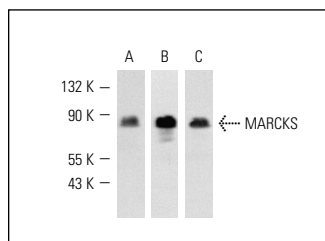
Molecular Weight of MARCKS: 80 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410.

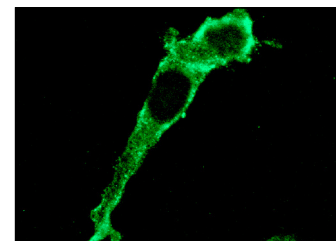
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Western blot analysis of MARCKS expression in SK-N-SH whole cell lysates (A,B,C). Antibodies tested include MARCKS (C-19): sc-6453 (A), MARCKS (N-19): sc-6454 (B) and MARCKS (M-20): sc-6455 (C).



MARCKS (C-19): sc-6453 Immunofluorescence staining of methanol-fixed SK-N-SH cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Kang, S., et al. 2003. Post-mortem changes in calmodulin binding proteins in muscle and lung. Forensic Sci. Int. 131: 140-147.
2. Lang, K., et al. 2004. Induction of a metastatogenic tumor cell type by neurotransmitters and its pharmacological inhibition by established drugs. Int. J. Cancer 112: 231-238.
3. Goudenege, S., et al. 2005. Biologically active milli-calpain associated with caveolae is involved in a spatially compartmentalised signalling involving protein kinase C α and myristoylated alanine-rich C-kinase substrate (MARCKS). Int. J. Biochem. Cell Biol. 37: 1900-1910.

RESEARCH USE

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



Try **MARCKS (JK-8): sc-100777**, our highly recommended monoclonal alternative to MARCKS (C-19).