

# MARCKS (h2): 293T Lysate: sc-177518

## 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  $\alpha$  and PKC  $\epsilon$ , but not PKC  $\delta$ , 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.
3. Hartwig, J.H., et al. 1992. MARCKS is an actin filament crosslinking protein regulated by protein kinase C and calcium-calmodulin. *Nature* 356: 618-622.
4. Herget, T., et al. 1992. Relationship between the major protein kinase C substrates acidic 80-kDa protein-kinase-C substrate (80K) and myristoylated alanine-rich C-kinase substrate (MARCKS). Members of a gene family or equivalent genes in different species. *Eur. J. Biochem.* 209: 7-14.
5. Sakai, K., et al. 1992. Molecular cloning and chromosomal mapping of a cDNA encoding human 80K-L protein: major substrate for protein kinase C. *Genomics* 14: 175-178.

## CHROMOSOMAL LOCATION

Genetic locus: MARCKS (human) mapping to 6q21.

## PRODUCT

MARCKS (h2): 293T Lysate represents a lysate of human MARCKS transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

MARCKS (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive MCC antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MARCKS (JK-8): sc-100777 is recommended as a positive control antibody for Western Blot analysis of enhanced human MARCKS expression in MARCKS transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

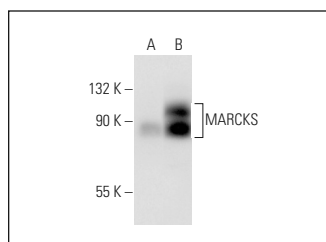
## RESEARCH USE

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

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



MARCKS (JK-8): sc-100777. Western blot analysis of MARCKS expression in non-transfected: sc-117752 (A) and human MARCKS transfected: sc-177518 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.