

# MARCKS (pS163) Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51329

## Product Information

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Application	WB
Primary Accession	<a href="#">P29966</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31555

## Additional Information

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Gene ID	4082
Other Names	Myristoylated alanine-rich C-kinase substrate, MARCKS, Protein kinase C substrate, 80 kDa protein, light chain, 80K-L protein, PKCSL, MARCKS, MACS, PRKCSL
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

## Protein Information

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Name	MARCKS
Synonyms	MACS, PRKCSL
Function	Membrane-associated protein that plays a role in the structural modulation of the actin cytoskeleton, chemotaxis, motility, cell adhesion, phagocytosis, and exocytosis through lipid sequestering and/or protein docking to membranes (PubMed: <a href="#">23704996</a> , PubMed: <a href="#">36009319</a> ). Thus, exerts an influence on a plethora of physiological processes, such as embryonic development, tissue regeneration, neuronal plasticity, and inflammation. Sequesters phosphatidylinositol 4,5- biphosphate (PIP2) at lipid rafts in the plasma membrane of quiescent cells, an action reversed by protein kinase C, ultimately inhibiting exocytosis (PubMed: <a href="#">23704996</a> ). During inflammation, promotes the migration and adhesion of inflammatory cells and the secretion of cytokines such as tumor necrosis factor (TNF), particularly in macrophages (PubMed: <a href="#">37949888</a> ). Plays an essential role in bacteria- induced intracellular reactive oxygen species (ROS) formation in the monocytic cell type. Participates in the regulation of neurite initiation and outgrowth by interacting with components of cellular machinery including CDC42 that

regulates cell shape and process extension through modulation of the cytoskeleton (By similarity). Plays also a role in axon development by mediating docking and fusion of RAB10-positive vesicles with the plasma membrane (By similarity).

**Cellular Location**

Cell membrane; Lipid-anchor. Cytoplasm, cytoskeleton Cytoplasm. Note=PKC-dependent phosphorylation displaces MARCKS from the cell membrane and subsequent dephosphorylation is accompanied by its reassociation with the membrane.

**Tissue Location**

Detected in spermatozoa.

## Background

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MARCKS is the most prominent cellular substrate for protein kinase C. This protein binds calmodulin, actin, and synapsin. MARCKS is a filamentous (F) actin cross-linking protein.

## References

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Sakai K.,et al.Genomics 14:175-178(1992).  
Mungall A.J.,et al.Nature 425:805-811(2003).  
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