10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-MARCKS (Phospho-S163) Antibody

Catalog # AP51329

Product Information

Application	WB, IF/IC
Primary Accession	P29966
Reactivity	Human, Mouse, Rat, Zebrafish, Chicken, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31555

Additional Information

Gene ID	4082
Other Names	MACS; PRKCSL; Myristoylated alanine-rich C-kinase substrate; MARCKS; Protein kinase C substrate, 80 kDa protein, light chain; 80K-L protein; PKCSL
Target/Specificity	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S163 of human MARCKS protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

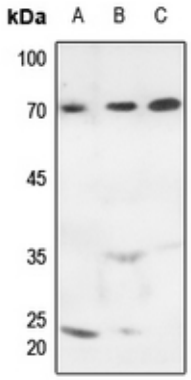
Name	MARCKS
Synonyms	MACS, PRKCSL
Function	Membrane-associated protein that plays a role in the structural modulation of the actin cytoskeleton, chemotaxis, motility, cell adhesion, phagocytosis, and exocytosis through lipid sequestering and/or protein docking to membranes (PubMed:23704996, PubMed:36009319). Thus, exerts an influence on a plethora of physiological processes, such as embryonic development, tissue regeneration, neuronal plasticity, and inflammation. Sequesters phosphatidylinositol 4,5- bisphosphate (PIP2) at lipid rafts in the plasma membrane of quiescent cells, an action reversed by protein kinase C, ultimately inhibiting exocytosis (PubMed:23704996). 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:37949888). 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.

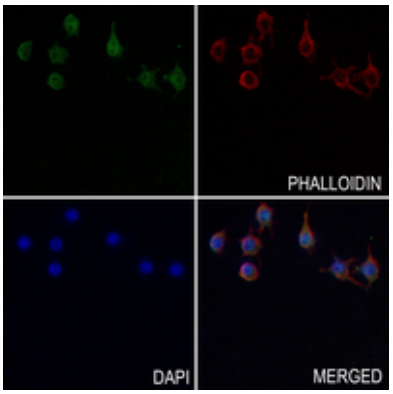
References

Harlan D.M.,et al.J. Biol. Chem. 266:14399-14405(1991).
Sakai K.,et al.Genomics 14:175-178(1992).
Mungall A.J.,et al.Nature 425:805-811(2003).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Herget T.,et al.Eur. J. Biochem. 209:7-14(1992).

Images



Western blot analysis of MARCKS (Phospho-S163) expression in Hela (A), Lovo (B), HepG2 (C) whole cell lysates. (Predicted band size: 31 kD; Observed band size: 75 kD)



Immunofluorescent analysis of MARCKS (Phospho-S163) staining in RAW264.7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.