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MARCKS Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP2521b

Specification

MARCKS Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	P29966
Other Accession	NP_002347

MARCKS Antibody (C-term) Blocking Peptide - Additional Information

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2521b was selected from the C-term region of human MARCKS . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MARCKS Antibody (C-term) Blocking Peptide - 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.

MARCKS Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

MARCKS Antibody (C-term) Blocking Peptide - Images

MARCKS Antibody (C-term) Blocking Peptide - Background

MARCKS is a substrate for protein kinase C. It is localized to the plasma membrane and is an actin filament crosslinking protein. Phosphorylation by protein kinase C or binding to calcium-calmodulin inhibits its association with actin and with the plasma membrane, leading to its presence in the cytoplasm. The protein is thought to be involved in cell motility, phagocytosis, membrane trafficking and mitogenesis.

MARCKS Antibody (C-term) Blocking Peptide - References

Rauch, M.E., et al., J. Biol. Chem. 277(16):14068-14076 (2002).Aderem, A., Biochem. Soc. Trans. 23(3):587-591 (1995).Rao, P.H., et al., Cytogenet. Cell Genet. 66(4):272-273 (1994).Taniguchi, H., et al., J. Biol. Chem. 268(14):9960-9963 (1993).Blackshear, P.J., J. Biol. Chem. 268(3):1501-1504 (1993).