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

MARCKS Antibody (clone 2C2)

Mouse Monoclonal Antibody
Catalog # ALS14083

Specification

MARCKS Antibody (clone 2C2) - Product Information

Application	**WB, IF, IHC**
Primary Accession	P29966
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**32kDa KDa**

MARCKS Antibody (clone 2C2) - 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
Human MARCKS

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
MARCKS Antibody (clone 2C2) is for research use only and not for use in diagnostic or therapeutic procedures.

MARCKS Antibody (clone 2C2) - 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.

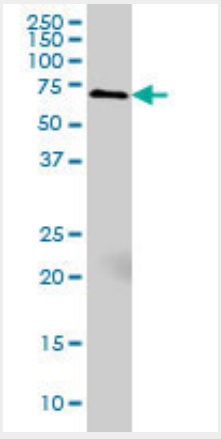
Tissue Location
Detected in spermatozoa.

MARCKS Antibody (clone 2C2) - Protocols

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

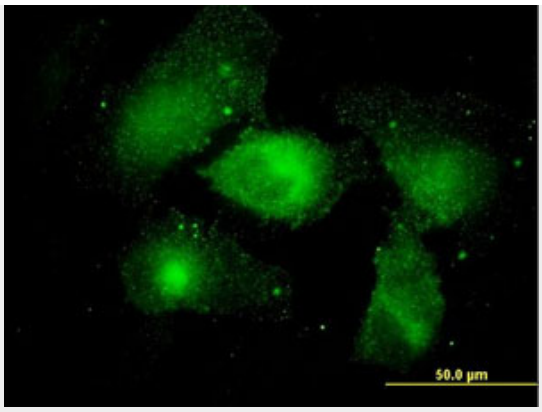
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MARCKS Antibody (clone 2C2) - Images

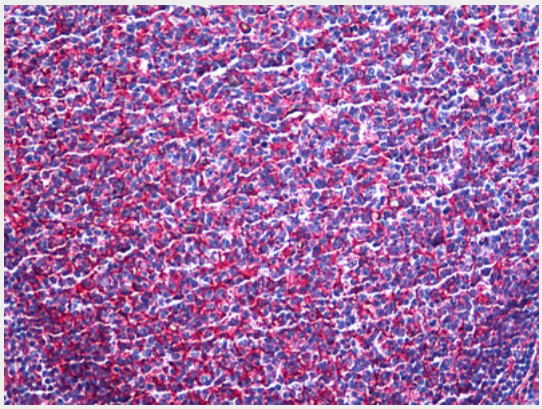


MARCKS monoclonal antibody clone 2C2.

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



Immunofluorescence of monoclonal antibody to MARCKS on HeLa cell. [antibody concentration 10 ug/ml]



Anti-MARCKS antibody IHC of human tonsil.

MARCKS Antibody (clone 2C2) - Background

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.

MARCKS Antibody (clone 2C2) - 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).