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PRODUCT DATASHEET

Anti-Myristoylated alanine rich C kinase substrate (MARCKS) Antibody

Product Details

Available Variants	50 µg (SKU:R-1380-50)
Conjugate	Unconjugated
Isotype	Mixed
Host Species	Rabbit
Format	Affinity Purified
Physical State	Lyophilized
Buffer	Lyophilized from PBS buffer pH 7.2-7.6 with 0.1% trehalose, and sodium azide
Applications	ICC, WB
Dilution Ranges	WB: 1:10000-1:20000 ICC: 1:500-1:1000
Species Reactivity	Human
Immunogen	Recombinant full length MARCKS expressed and purified from E. coli
Specificity	The specificity of this antibody has been confirmed by WB. Does not react with rodent protein.
Storage	Spin vial briefly before opening. Reconstitute with 50 µL sterile-filtered, ultrapure water. Centrifuge to remove any insoluble material. After reconstitution of lyophilized antibody, aliquot and store at -20°C for a higher stability. Avoid freeze-thaw cycles.
UniProt ID	P30009 UniProt Summary: 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. 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. During inflammation, promotes the migration and adhesion of inflammatory cells and the secretion of cytokines such as tumor necrosis factor (TNF), particularly in macrophages. 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. Plays also a role in axon development by mediating docking and fusion of RAB10-positive vesicles with the plasma membrane.

Country of Origin	United States
Shipping	25°C (ambient)
Expiration	12 months after date of receipt (unopened vial).
Usage Statement	For research use only.
NCBI Gene ID	4082

Product Images

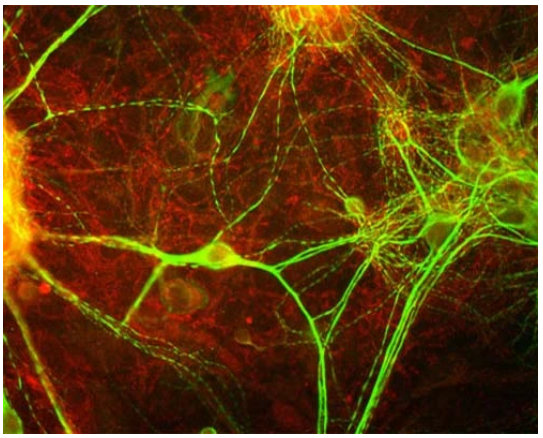
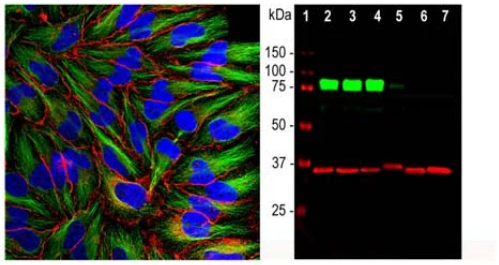


Image of mixed neuron/glial cultures stained with Rabbit polyclonal antibody to Myristoylated alanine rich C kinase substrate (MARCKS) R-1380-50 (red) and Chicken polyclonal antibody to MAP2 C-1382-50. Note that the MARCKS antibody stains vesicular structures both in the glial cells and in the dendrites of the neurons, which are strongly stained with the MAP2 antibody.



Left: Analysis of MARCKS expression (red) in HeLa cells by **Immunocytochemistry**. MARCKS protein was detected with rabbit antibody to MARCKS at 1:1,000 dilution. Cells were co-stained with a mouse anti-beta tubulin antibody (green). Blue: DAPI nuclear stain. The MARCKS antibody recognizes protein localized in the plasma membrane and cytoplasm. **Right: Western blot** analysis of MARCKS expression (green) in various cell line lysates using rabbit anti-MARCKS antibody (1:1,000). [1] protein standard, [2] HEK293, [3] HeLa, [4] SH-SY5Y, [5] COS1, [6] NIH-3T3, [7] C6. The blot was probed simultaneously with mouse antibody to GAPDH (M-1376-250, red, 1:5,000). The strong band at 80 kDa corresponds to MARCKS protein, detected only in the proteins of human origin. Slight reactivity is observed in the monkey cells (lane 5), but no reactivity is seen on rodent cells (lanes 6 and 7). The GAPDH antibody used as a loading control reveals a single band at 37 kDa in all preparations.