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MARCKS Antibody (monoclonal) (M06)

Mouse monoclonal antibody raised against a partial recombinant MARCKS.
Catalog # AT2803a

Product Information

Application	WB, IHC, IF, E
Primary Accession	P29966
Other Accession	NM_002356
Reactivity	Human, Mouse
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	2C2
Calculated MW	31555

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	MARCKS (NP_002347, 2 a.a. ~ 65 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	MARCKS Antibody (monoclonal) (M06) is for research use only and not for use in diagnostic or therapeutic procedures.

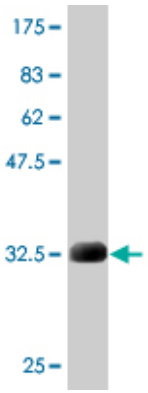
Background

The protein encoded by this gene 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.

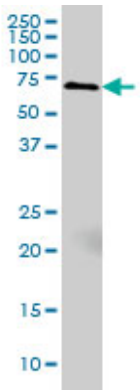
References

MARCKS and related chaperones bind to unconventional myosin V isoforms in airway epithelial cells. Lin KW, et al. Am J Respir Cell Mol Biol, 2010 Aug. PMID 20203291.Myristoylated alanine-rich C kinase substrate phosphorylation promotes cholangiocarcinoma cell migration and metastasis via the protein kinase C-dependent pathway. Techasen A, et al. Cancer Sci, 2010 Mar. PMID 20047593.A cell motility screen reveals role for MARCKS-related protein in adherens junction formation and tumorigenesis. Finlayson AE, et al. PLoS One, 2009 Nov 18. PMID 19924305.Epidermal growth factor receptor variant III-induced glioma invasion is mediated through myristoylated alanine-rich protein kinase C substrate overexpression. Micallef J, et al. Cancer Res, 2009 Oct 1. PMID 19773446.Myristoylated alanine-rich C-kinase substrate (MARCKS) protein regulation of human neutrophil migration. Eckert RE, et al. Am J Respir Cell Mol Biol, 2010 May. PMID 19574534.

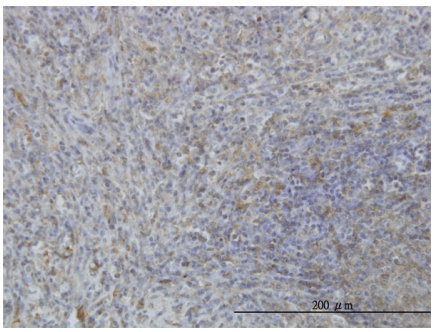
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (32.78 KDa) .

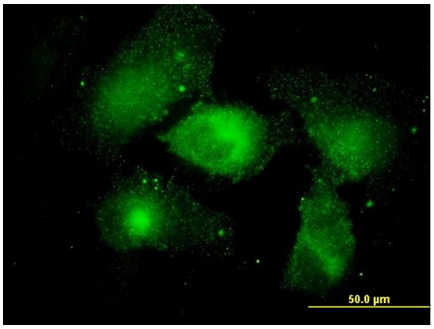


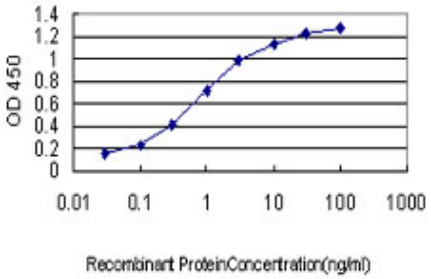
MARCKS monoclonal antibody (M06), clone 2C2. Western Blot analysis of MARCKS expression in Raw 264.7. (The predicted M.W. of MARCKS is 29 to 39 KDa, but it seems the actual M.W. in vivo is between 68 to 90 KDa in different species. http://www.pnas.org/content/88/6/2505.full.pdf , http://www.ncbi.nlm.nih.gov/entrez/dispomim.cgi?id=177061)



Immunoperoxidase of monoclonal antibody to MARCKS on formalin-fixed paraffin-embedded human spleen. [antibody concentration 3 ug/ml]

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





Detection limit for recombinant GST tagged MARCKS is approximately 0.03ng/ml as a capture antibody.