

Anti-phospho-MARCKS (Ser152 Ser156)

Rabbit Polyclonal Antibody

Catalog # M02-565R

Lot # J1274-19

Cited Applications

WB

Suggested Dilutions:
WB 1:1,000

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the MARCKS protein phosphorylated at serine 152 and serine 156

Cross Reactivity

Human, Mouse, Rat, Bovine, Chicken, Xenopus and Zebrafish

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

corresponding to amino acid residues surrounding Ser152/156 conjugated to KLH

Formulation

100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.

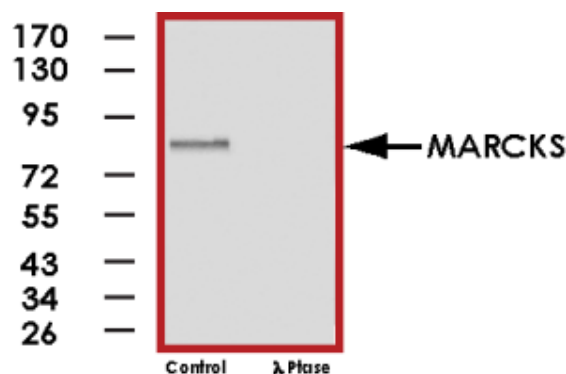
Scientific Background

Myristoylated Alanine-Rich C Kinase Substrate (MARCKS) is a member of a family of calmodulin binding proteins that is a target for phosphorylation by protein kinase C (PKC) (1). MARCKS is concentrated in the synapses of neurons where it appears to function in synaptic vesicle cycling. MARCKS has been shown to bind both actin and calmodulin in vitro (2). Deletion of the MARCKS gene in mice results in embryonic brain defects and death (3). Phosphorylation of Ser152/156 modulates the binding of MARCKS to calmodulin (4).

References

1. Ouimet, C. C. et al: Localization of the MARCKS (87 kDa) protein, a major specific substrate for protein kinase C, in rat brain. 1990 J Neurosci 10:1683-1698.
2. Hartwig J H. et al: MARCKS is an actin filament crosslinking protein regulated by protein kinase C and calcium-calmodulin. Nature 1993 356: 618-622.
3. Stumpo D J. et al: MARCKS deficiency in mice leads to abnormal brain development and perinatal death. Proc. Nat. Acad. Sci. 1995 92: 944-948.
4. Verghese G M. et al: Protein kinase C-mediated phosphorylation and calmodulin binding of recombinant myristoylated alanine-rich C kinase substrate (MARCKS) and MARCKS-related protein. J Biol Chem 1994 269:9361-9367.

Sample Data



Western blot of rat brain lysate showing specific immunolabeling of the ~87kDa MARCKS protein phosphorylated at Ser152/156 (Control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: lambda-Ptase). The blot is identical to the control except that it was incubated in lambda-Ptase (1200 units for 30 min) before being exposed to the Anti-phospho-MARCKS (Ser152 Ser156) antibody. The immunolabeling is completely eliminated by treatment with lambda-Ptase.

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Purification

Affinity chromatography

Stability

1yr at -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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