Store at -20°C

#11992

Phospho-MARCKS (Ser159/163) (D13D2) Rabbit mAb

100 µl (10 western blots)

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Entrez-Gene ID #4082
UniProt ID #P29966

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, M, R, (Mk, C, X, Z, B, Pg)	75 kDa (rodent), 80 kDa (human)	Rabbit IgG**

Background: Myristoylated **A**lanine-**R**ich **C**-**K**inase **S**ubstrate (MARCKS) is a major PKC substrate expressed in many cell types. MARCKS has been implicated in cell motility, cell adhesion, phagocytosis, membrane traffic, and mitogenesis (1). PKC phosphorylates Ser159, 163, 167, and 170 of MARCKS in response to growth factors and oxidative stress. Phosphorylation at these sites regulates the calcium/calmodulin binding and filamentous (F)-actin cross-linking activities of MARCKS (2-4). Phosphorylation by PKC also results in translocation of MARCKS from the plasma membrane to the cytoplasm (5).

Specificity/Sensitivity: Phospho-MARCKS (Ser159/163) (D13D2) Rabbit mAb recognizes endogenous levels of MARCKS protein when phosphorylated at Ser159 and Ser163 (human residues).

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser159 and Ser163 of human MARCKS protein.

Background References:

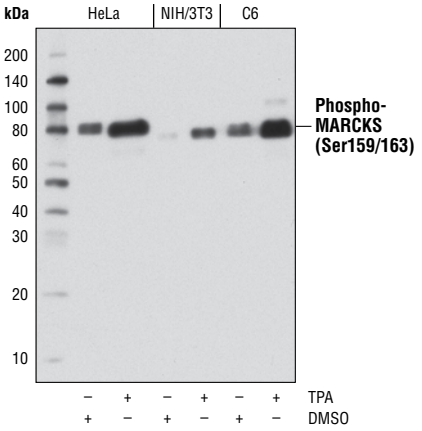
(1) Ramsden, J.J. (2000) *Int J Biochem Cell Biol* 32, 475-9.

(2) Heemskerk, F.M. et al. (1993) *Biochem Biophys Res Commun* 190, 236-41.

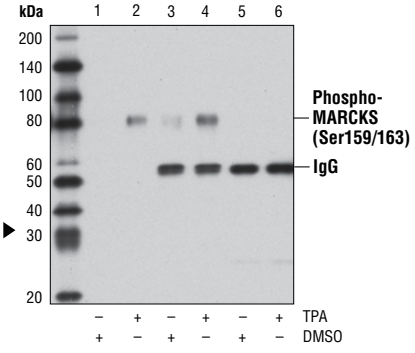
(3) Graff, J.M. et al. (1989) *J Biol Chem* 264, 21818-23.

(4) Hartwig, J.H. et al. (1992) *Nature* 356, 618-22.

(5) Thelen, M. et al. (1991) *Nature* 351, 320-2.



Western blot analysis of extracts from HeLa, NIH/3T3, and C6 cells, serum starved overnight and either DMSO-treated or treated with TPA #4174 (200 nM, 15 min), using Phospho-MARCKS (Ser159/163) (D13D2) Rabbit mAb.



Immunoprecipitation of phospho-MARCKS (Ser159/163) from HeLa cells, either DMSO-treated or treated with TPA #4174 (200 nM, 15 min), using Phospho-MARCKS (Ser159/163) (D13D2) Rabbit mAb (lanes 3 and 4) or MARCKS (D88D11) XP® Rabbit mAb #5607 (lanes 5 and 6). Lanes 1 and 2 represent 10% of input lysate for each treatment. Western blot analysis was performed using MARCKS (D88D11) XP® Rabbit mAb #5607. Note: MARCKS (D88D11) XP® Rabbit mAb #5607 does not immunoprecipitate phospho-MARCKS (Ser159/163) and was used as a negative control.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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