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**Phospho-MARCKS (Ser167/170) (D13E4)  
XP® Rabbit mAb**

For Research Use Only. Not for Use in Diagnostic Procedures.

<b>Applications:</b> W, IF-IC, FC-FP	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 75 rodent, 80 human	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P29966	<b>Entrez-Gene Id:</b> 4082
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<b>Product Usage Information</b>	<b>Application</b> Western Blotting Immunofluorescence (Immunocytochemistry) Flow Cytometry (Fixed/Permeabilized)	<b>Dilution</b> 1:1000 1:100 1:200
<b>Storage</b>	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.	
<b>Specificity/Sensitivity</b>	Phospho-MARCKS (Ser167/170) (D13E4) XP® Rabbit mAb recognizes endogenous levels of MARCKS protein only when phosphorylated at Ser167 and Ser170. This antibody may also detect MARCKS mono-phosphorylated at Ser167.	
<b>Species predicted to react based on 100% sequence homology</b>	Chicken, Bovine	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser167 and Ser170 of human MARCKS protein.	
<b>Background</b>	Myristoylated Alanine-Rich C-Kinase Substrate (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).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Ramsden, J.J. (2000) <i>Int J Biochem Cell Biol</i> 32, 475-9.</li> <li>2. Heemskerk, F.M. et al. (1993) <i>Biochem Biophys Res Commun</i> 190, 236-41.</li> <li>3. Graff, J.M. et al. (1989) <i>J Biol Chem</i> 264, 21818-23.</li> <li>4. Hartwig, J.H. et al. (1992) <i>Nature</i> 356, 618-22.</li> <li>5. Thelen, M. et al. (1991) <i>Nature</i> 351, 320-2.</li> </ol>	
<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.	
<b>Applications Key</b>	<b>W:</b> Western Blotting <b>IF-IC:</b> Immunofluorescence (Immunocytochemistry) <b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)	
<b>Cross-Reactivity Key</b>	<b>H:</b> Human <b>M:</b> Mouse <b>R:</b> Rat	
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