

**#2831** Store at -20C

## Phospho-cPLA2 (Ser505) Antibody


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

<b>Applications:</b> WB, IP	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 95	<b>Source:</b> Rabbit	<b>UniProt ID:</b> #P47712	<b>Entrez-Gene Id:</b> 5321
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<b>Product Usage Information</b>	<b>Application</b> Western Blotting Immunoprecipitation	<b>Dilution</b> 1:1000 1:50
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	Phospho-cPLA2 (Ser505) Antibody detects endogenous levels of cPLA2 only when phosphorylated at serine 505. It does not cross-react with the secreted PLA2 (sPLA2) or cytosolic Ca2+ independent PLA2 (iPLA2).	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser505 of human cPLA2. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	Cytosolic phospholipase A2 (cPLA2) is a ubiquitously distributed enzyme that catalyzes the hydrolysis of the sn-2 acyl bond of glycerolipids to produce lysophospholipids and release arachidonic acid (1). cPLA2 has been implicated in diverse cellular responses such as mitogenesis, differentiation, inflammation and cytotoxicity (1). Calcium binding to the amino-terminal CalB domain of cPLA2 promotes the translocation of cPLA2 from cytosol to membrane, where cPLA2 cleaves arachidonic acid from natural membrane (2). Phosphorylation of cPLA2 by MAPK (p42/44 and p38) at Ser505 (3,4) and Ser727 (5) stimulates its catalytic activity.	
<b>Background References</b>	1. Leslie, C.C. (1997) <i>J. Biol. Chem.</i> 272, 16709-16712. 2. Clark, J. D. et al. (1991) <i>Cell</i> 65, 1043-1051. 3. Lin, L. L. et al. (1993) <i>Cell</i> 72, 269-278. 4. Kramer, R.M. (1996) <i>J. Biol. Chem.</i> 271, 27723-27729. 5. Hefner, Y. et al. (2000) <i>J. Biol. Chem.</i> 275, 37542-37551.	

<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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting <b>IP:</b> Immunoprecipitation
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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