

#2832 Store at -20°C

# cPLA2 Antibody

100 µl  
 (10 western blots)

**Orders** ■ 877-616-CELL (2355)  
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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

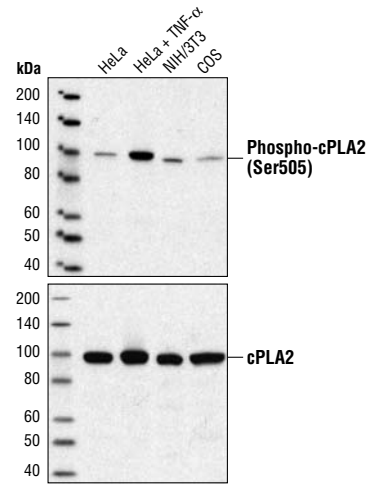
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk	95 kDa	Rabbit**

**Background:** 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.

**Specificity/Sensitivity:** cPLA2 Antibody detects endogenous levels of total cPLA2 protein. This antibody does not cross-react with the secreted PLA2 (sPLA2) or cytosolic Ca<sup>2+</sup> independent PLA2 (iPLA2).

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy terminal residues of human cPLA2. Antibodies are purified by protein A and peptide affinity chromatography.

- Background References:**
- (1) Leslie, C.C. (1997) *J. Biol. Chem.* 272, 16709–16712.
  - (2) Clark, J.D. et al. (1991) *Cell* 65, 1043–1051.
  - (3) Lin, L.L. et al. (1993) *Cell* 72, 269–278.
  - (4) Kramer, R.M. (1996) *J. Biol. Chem.* 271, 27723–27729.
  - (5) Hefner, Y. et al. (2000) *J. Biol. Chem.* 275, 37542–37551.



Western blot analysis of extracts from HeLa cells, untreated or TNF-α-treated (10 ng/ml for 15 minutes), and NIH/3T3 and COS cells, using Phospho-cPLA2 (Ser505) Antibody #2831 (upper) or cPLA2 Antibody (lower).

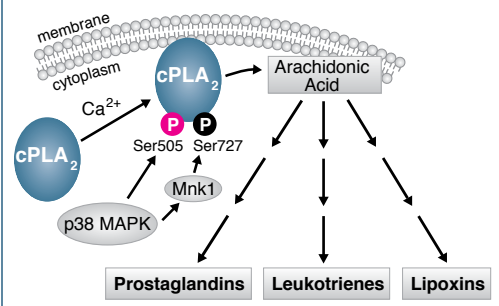
**Entrez-Gene ID** #5321  
**Swiss-Prot Acc.** #P47712

**Storage:** 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.

**\*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 1:50

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**  
**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**



**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.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.