

# Phospho-PLD1 (Ser561) Antibody

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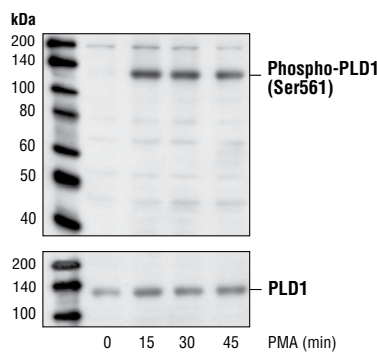
**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications W Endogenous	Species Cross-Reactivity* H, M, R	Molecular Wt. 120 kDa	Source Rabbit**
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**Background:** Phosphatidylcholine-specific phospholipase D (PLD) hydrolyzes phosphatidylcholine (PC) to produce choline and phosphatidic acid (PA). PA is the precursor of the second messenger, diacylglycerol (DAG). Two isoforms of PLD (PLD1 and PLD2) have been identified so far. Both are regulated by protein kinases, small GTPases and Ca<sup>2+</sup> (1). PLD1 is phosphorylated at Ser2, Ser561 and Thr147 by PKC (2,3). Phosphorylation at Thr147 and Ser561 regulates PLD1 activity (3).

**Specificity/Sensitivity:** Phospho-PLD1 (Ser561) Antibody detects endogenous levels of PLD1 only when phosphorylated at Ser561. This antibody does not cross-react with phosphorylated PLD2.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser561 of human PLD1. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from C6 cells, untreated or PMA-stimulated for the indicated times using Phospho-PLD1 (Ser561) Antibody (upper) or PLD1 Antibody #3832 (lower).

Entrez-Gene ID #5337  
Swiss-Prot Acc. #Q13393

**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

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.

#### Background References:

- (1) Exton, J.H. (1999) *Biochim. Biophys. Acta.* 1439, 121–133.
- (2) Kim, Y. et al. (1999) *Biochemistry* 38, 103244–10351.
- (3) Kim, Y. et al. (2000) *J. Biol. Chem.* 275, 13621–13627.

**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.