

cPLA2 (D49A7) Rabbit mAb

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Applications: W, IP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 98	Source/Isotype: Rabbit IgG	UniProt ID: #P47712	Entrez-Gene Id: 5321
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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.

Specificity/Sensitivity

cPLA2 (D49A7) Rabbit mAb detects endogenous levels of total cPLA2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu245 of human cPLA2 protein.

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.

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse

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