

cPLA2 Polyclonal Antibody

Catalog No: YT5176

Reactivity: Human; Mouse; Rat

Applications: WB;IHC;IF;ELISA

Target: cPLA2

Fields: >>Glycerophospholipid metabolism;>>Ether lipid metabolism;>>Arachidonic

acid metabolism;>>Linoleic acid metabolism;>>alpha-Linolenic acid

metabolism;>>Metabolic pathways;>>MAPK signaling pathway;>>Ras signaling pathway;>>Phospholipase D signaling pathway;>>Necroptosis;>>Vascular smooth muscle contraction;>>VEGF signaling pathway;>>Platelet activation;>>Fc

epsilon RI signaling pathway;>>Fc gamma R-mediated

phagocytosis;>>Glutamatergic synapse;>>Serotonergic synapse;>>Long-term depression;>>Inflammatory mediator regulation of TRP channels;>>GnRH signaling pathway;>>Ovarian steroidogenesis;>>Oxytocin signaling

pathway;>>Choline metabolism in cancer

Gene Name: PLA2G4A

Protein Name: Cytosolic phospholipase A2

Human Gene Id: 5321

Human Swiss Prot

No:

Mouse Gene Id: 18783

Mouse Swiss Prot

No:

P47713

P47712

Rat Swiss Prot No: P50393

Immunogen: The antiserum was produced against synthesized peptide derived from the N-

terminal region of human PLA2G4A. AA range:31-80

Specificity: cPLA2 Polyclonal Antibody detects endogenous levels of cPLA2 protein.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

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Source: Polyclonal, Rabbit, IgG

Dilution : WB 1:500 - 1:2000. IHC: 1:100-300 ELISA: 1:20000.. IF 1:50-200

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 114kD

Cell Pathway: Glycerophospholipid metabolism;Ether lipid metabolism;Arachidonic acid

metabolism;Linoleic acid metabolism;alpha-Linolenic acid

metabolism; MAPK ERK Growth; MAPK G Protein; Vascular smooth muscle

contrac

Background: This gene encodes a member of the cytosolic phospholipase A2 group IV family.

The enzyme catalyzes the hydrolysis of membrane phospholipids to release

arachidonic acid which is subsequently metabolized into eicosanoids.

Eicosanoids, including prostaglandins and leukotrienes, are lipid-based cellular hormones that regulate hemodynamics, inflammatory responses, and other intracellular pathways. The hydrolysis reaction also produces lysophospholipids that are converted into platelet-activating factor. The enzyme is activated by increased intracellular Ca(2+) levels and phosphorylation, resulting in its translocation from the cytosol and nucleus to perinuclear membrane vesicles. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul

2015],

Function: catalytic activity:2-lysophosphatidylcholine + H(2)O = glycerophosphocholine +

a carboxylate., catalytic activity: Phosphatidylcholine + H(2)O =

1-acylglycerophosphocholine + a carboxylate.,domain:The N-terminal C2 domain, by its association with lipid membranes, mediates the regulation of CPLA2 by presenting the active site to its substrate in response to elevations of cytosolic Ca(2+).,enzyme regulation:Stimulated by agonists such as ATP, EGF, thrombin and bradykinin as well as by cytosolic Ca(2+).,function:Selectively hydrolyzes arachidonyl phospholipids in the sn-2 position releasing arachidonic acid. Together with its lysophospholipid activity, it is implicated in the initiation of the inflammatory response.,PTM:Activated by phosphorylation at both Ser-505 and

Ser-727., similarity: Contains 1 C2 domain., similarity: Contains 1 PLA2c

domain., subcellular location: Translocates to membrane ve

Subcellular Location:

Cytoplasm . Golgi apparatus membrane . Nucleus envelope. Translocates to

intracellular membranes in a calcium-dependent way. .

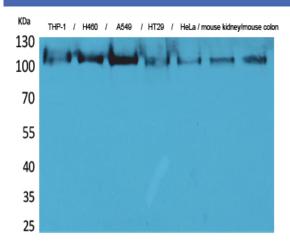
Expressed in various cells and tissues such as macrophages, neutrophils,



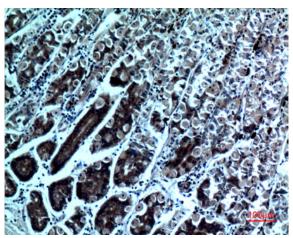
Expression:

fibroblasts and lung endothelium. Expressed in platelets (at protein level) (PubMed:25102815).

Products Images



Western Blot analysis of THP-1, H460, A549, HT29, HeLa, mouse kidney, mouse colon cells using cPLA2 Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded humanstomach, antibody was diluted at 1:100