Product Name: cPLA2 Rabbit Polyclonal Antibody
Catalog #: APRab09314

Summary

Production Name	cPLA2 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,IHC,WB,
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PLA2G4A
Alternative Names	PLA2G4A; CPLA2; PLA2G4; Cytosolic phospholipase A2; cPLA2; Phospholipase A2 group IVA
Gene ID	5321.0
SwissProt ID	P47712.The antiserum was produced against synthesized peptide derived from human c-PLA2. AA range:471-520

Application

Dilution Ratio	WB 1:500 - 1:2000 IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
Molecular Weight	110kD

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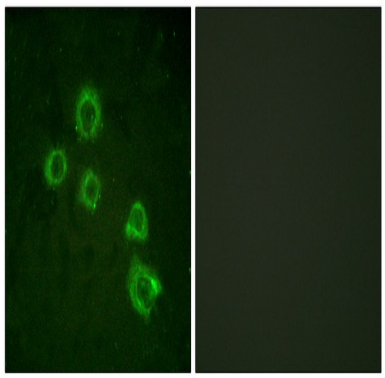
Background

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],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 vesicles in a calcium-dependent fashion.,subunit:Interacts with HTATIP.,tissue specificity:Expressed in various tissues such as macrophages, platelets, neutrophils, fibroblasts and lung endothelium.,

Research Area

Glycerophospholipid metabolism;Ether lipid metabolism;Arachidonic acid metabolism;Linoleic acid metabolism;alpha-Linolenic acid metabolism;MAPK_ERK_Growth;MAPK_G_Protein;Vascular smooth muscle contraction;VEGF;Fc epsilon RI;Fc gamma R-mediated phagocytosis;Long-term depression;GnRH;

Image Data



Immunofluorescence analysis of HUVEC cells, using c-PLA2 Antibody. The picture on the right is blocked with the synthesized peptide.

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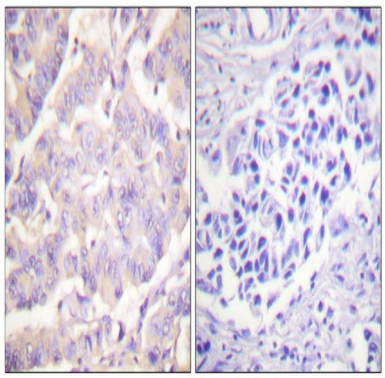
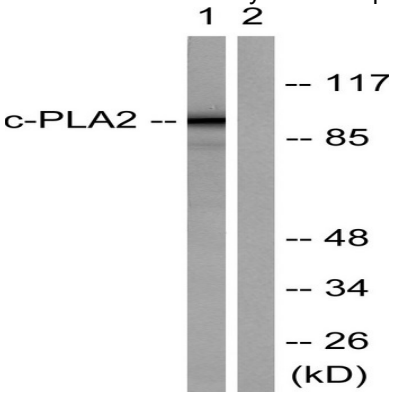
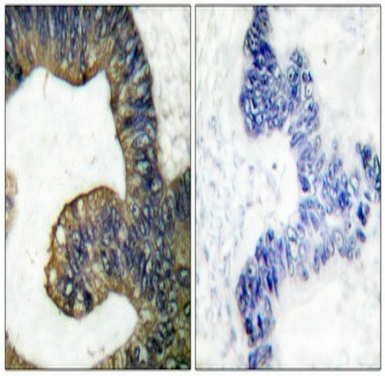


Immunohistochemistry analysis of paraffin-embedded human colon carcinoma tissue, using c-PLA2 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HeLa cells, treated with TNF-a 20ng/ml 30 ', using c-PLA2 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded Human colon cancer. Antibody was diluted at 1:100 (4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.

Note

For research use only.