Product Name: **cPLA2 (phospho Ser505) Rabbit Polyclonal Antibody**
Catalog #: **APRab04493**
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:20000
Molecular Weight	110kDa

Antigen Information

Gene Name	PLA2G4A
Alternative Names	PLA2G4A; CPLA2; PLA2G4; Cytosolic phospholipase A2; cPLA2; Phospholipase A2 group IVA
Gene ID	5321.0
SwissProt ID	P47712
Immunogen	The antiserum was produced against synthesized peptide derived from human c-PLA2 around the phosphorylation site of Ser505. AA range:471-520

Background

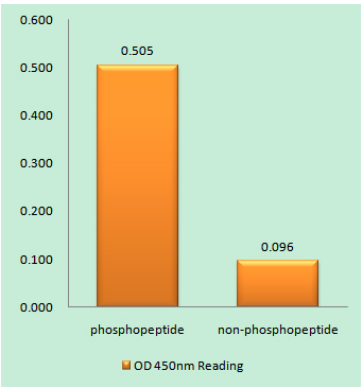
This gene encodes a member of the cytosolic phospholipase A2 group IV family. The enzyme catalyzes the hydrolysis of

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.,

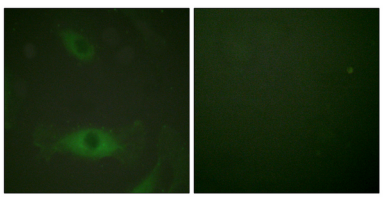
Research Area

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;

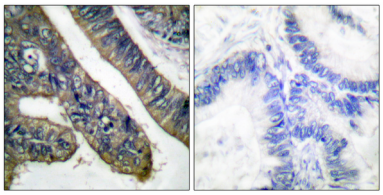
Image Data



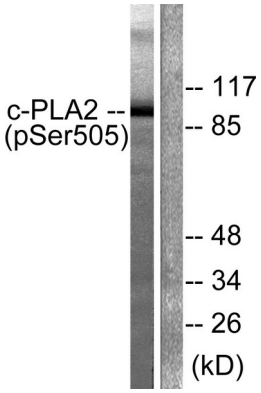
Enzyme-Linked Immunosorbent Assay （Phospho-ELISA） for Immunogen Phosphopeptide （Phospho-left） and Non-Phosphopeptide （Phospho-right）, using c-PLA2 （Phospho-Ser505） Antibody



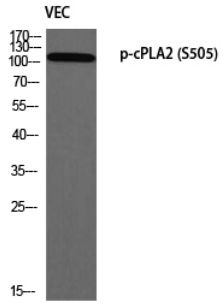
Immunofluorescence analysis of HeLa cells treated with TNF-a 20nM 15 ', using c-PLA2 （Phospho-Ser505） Antibody. The picture on the right is blocked with the phospho peptide.



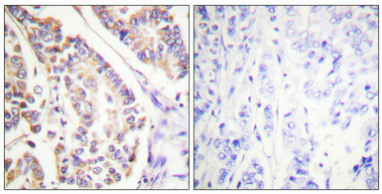
Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using c-PLA2 （Phospho-Ser505） Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HeLa cells treated with TNF-a 20ng/ml 30 ', using c-PLA2 （Phospho-Ser505） Antibody. The lane on the right is blocked with the phospho peptide.



Western blot analysis of VEC using p-cPLA2 （S505） antibody. Antibody was diluted at 1:1000



Immunohistochemical analysis of paraffin-embedded Human breast 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.