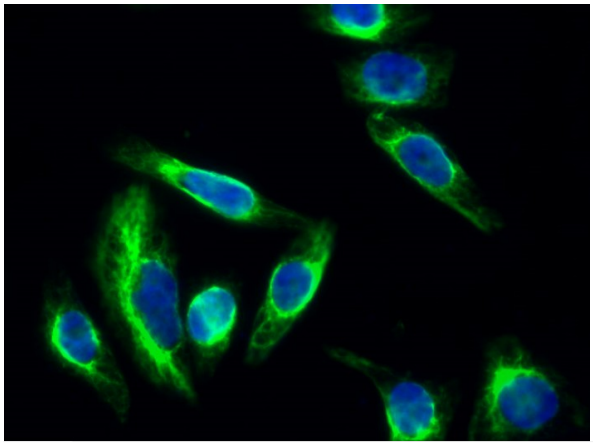
cPLA2 Polyclonal Antibody

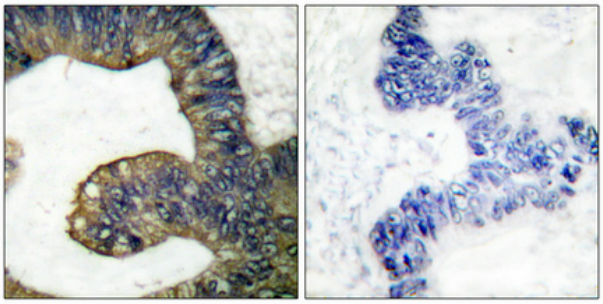
Catalog No	YP-Ab-02550
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	PLA2G4A
Protein Name	Cytosolic phospholipase A2
Immunogen	The antiserum was produced against synthesized peptide derived from human c-PLA2. AA range:471-520
Specificity	cPLA2 Polyclonal Antibody detects endogenous levels of cPLA2 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PLA2G4A; CPLA2; PLA2G4; Cytosolic phospholipase A2; cPLA2; Phospholipase A2 group IVA
Observed Band	110kD
Cell Pathway	Cytoplasm . Golgi apparatus membrane . Nucleus envelope. Translocates to intracellular membranes in a calcium-dependent way. .
Tissue Specificity	Expressed in various cells and tissues such as macrophages, neutrophils, fibroblasts and lung endothelium. Expressed in platelets (at protein level) (PubMed:25102815).
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

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],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

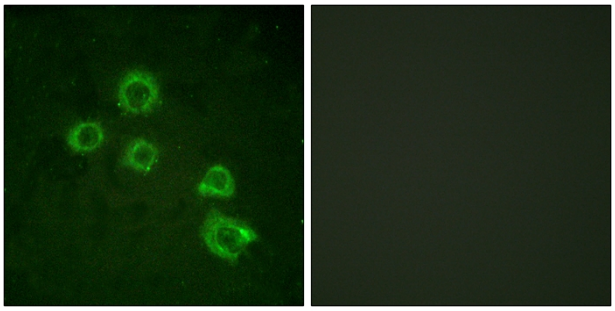
Products Images



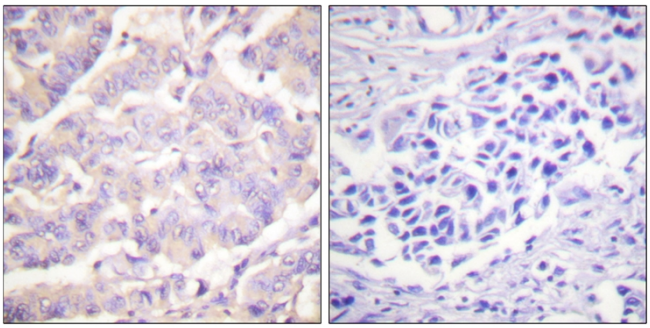
Immunofluorescence analysis of Hela cell. 1,cPLA2 Polyclonal Antibody(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog:RS3211 was diluted at 1:1000(room temperature, 50min). 3 DAPI(blue) 10min.



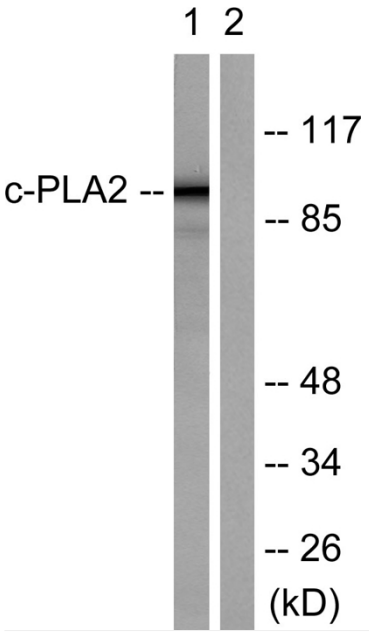
Immunohistochemical analysis of paraffin-embedded Human colon cancer. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.



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



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.