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PLA2G4A Antibody (aa471-520)

Rabbit Polyclonal Antibody
Catalog # ALS15006

Specification

PLA2G4A Antibody (aa471-520) - Product Information

Application	**IF, WB**
Primary Accession	P47712
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**85kDa KDa**

PLA2G4A Antibody (aa471-520) - Additional Information

Gene ID 5321

Other Names
Cytosolic phospholipase A2, cPLA2, Phospholipase A2 group IVA, Phospholipase A2, 3.1.1.4, Phosphatidylcholine 2-acylhydrolase, Lysophospholipase, 3.1.1.5, PLA2G4A, CPLA2, PLA2G4

Target/Specificity
c-PLA2 Antibody detects endogenous levels of total c-PLA2 protein.

Reconstitution & Storage
Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

Precautions
PLA2G4A Antibody (aa471-520) is for research use only and not for use in diagnostic or therapeutic procedures.

PLA2G4A Antibody (aa471-520) - Protein Information

Name PLA2G4A

Synonyms CPLA2, PLA2G4

Function
Has primarily calcium-dependent phospholipase and lysophospholipase activities, with a major role in membrane lipid remodeling and biosynthesis of lipid mediators of the inflammatory response (PubMed:10358058, PubMed:14709560, PubMed:16617059, PubMed:17472963, PubMed:18451993, PubMed:27642067, PubMed:7794891, PubMed:8619991,

PubMed:8702602, PubMed:9425121). Plays an important role in embryo implantation and parturition through its ability to trigger prostanoid production (By similarity). Preferentially hydrolyzes the ester bond of the fatty acyl group attached at sn-2 position of phospholipids (phospholipase A2 activity) (PubMed:10358058, PubMed:17472963, PubMed:18451993, PubMed:7794891, PubMed:8619991, PubMed:9425121). Selectively hydrolyzes sn-2 arachidonoyl group from membrane phospholipids, providing the precursor for eicosanoid biosynthesis via the cyclooxygenase pathway (PubMed:10358058, PubMed:17472963, PubMed:18451993, PubMed:7794891, PubMed:9425121). In an alternative pathway of eicosanoid biosynthesis, hydrolyzes sn-2 fatty acyl chain of eicosanoid lysophopholipids to release free bioactive eicosanoids (PubMed:27642067). Hydrolyzes the ester bond of the fatty acyl group attached at sn-1 position of phospholipids (phospholipase A1 activity) only if an ether linkage rather than an ester linkage is present at the sn-2 position. This hydrolysis is not stereospecific (PubMed:7794891). Has calcium-independent phospholipase A2 and lysophospholipase activities in the presence of phosphoinositides (PubMed:12672805). Has O-acyltransferase activity. Catalyzes the transfer of fatty acyl chains from phospholipids to a primary hydroxyl group of glycerol (sn-1 or sn-3), potentially contributing to monoacylglycerol synthesis (PubMed:7794891).

Cellular Location
Cytoplasm. Golgi apparatus membrane. Nucleus envelope Note=Translocates to intracellular membranes in a calcium-dependent way.

Tissue Location
Expressed in various cells and tissues such as macrophages, neutrophils, fibroblasts and lung endothelium. Expressed in platelets (at protein level) (PubMed:25102815)

Volume
50 µl

PLA2G4A Antibody (aa471-520) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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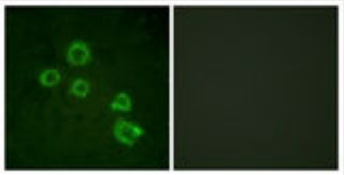
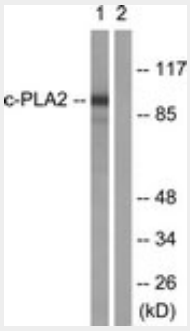
PLA2G4A Antibody (aa471-520) - Images



Immunofluorescence of HUVEC cells, using c-PLA2 Antibody.



Western blot of extracts from HeLa cells, treated with TNF-a 20 ng/ml 30', using c-PLA2 Antibody.

PLA2G4A Antibody (aa471-520) - Background

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.

PLA2G4A Antibody (aa471-520) - References

Clark J.D.,et al.Cell 65:1043-1051(1991).
Sharp J.,et al.J. Biol. Chem. 266:14850-14853(1991).
Gregory S.G.,et al.Nature 441:315-321(2006).
Lin L.-L.,et al.Cell 72:269-278(1993).
Sharp J.D.,et al.J. Biol. Chem. 269:23250-23254(1994).