

**PLA2G4A Antibody (internal region)**  
Peptide-affinity purified goat antibody  
Catalog # AF3236a

**Specification**

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**PLA2G4A Antibody (internal region) - Product Information**

Application	WB
Primary Accession	<a href="#">P47712</a>
Other Accession	<a href="#">NP_077734.1</a> , <a href="#">5321</a>
Reactivity	Human, Mouse
Predicted	Rat
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	85239

**PLA2G4A Antibody (internal region) - 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

**Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

PLA2G4A Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**PLA2G4A Antibody (internal region) - 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](http://www.uniprot.org/citations/10358058)), PubMed: [14709560](http://www.uniprot.org/citations/14709560)),

PubMed:<a href="http://www.uniprot.org/citations/16617059" target="\_blank">16617059</a>, PubMed:<a href="http://www.uniprot.org/citations/17472963" target="\_blank">17472963</a>, PubMed:<a href="http://www.uniprot.org/citations/18451993" target="\_blank">18451993</a>, PubMed:<a href="http://www.uniprot.org/citations/27642067" target="\_blank">27642067</a>, PubMed:<a href="http://www.uniprot.org/citations/7794891" target="\_blank">7794891</a>, PubMed:<a href="http://www.uniprot.org/citations/8619991" target="\_blank">8619991</a>, PubMed:<a href="http://www.uniprot.org/citations/8702602" target="\_blank">8702602</a>, PubMed:<a href="http://www.uniprot.org/citations/9425121" target="\_blank">9425121</a>). 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:<a href="http://www.uniprot.org/citations/10358058" target="\_blank">10358058</a>, PubMed:<a href="http://www.uniprot.org/citations/17472963" target="\_blank">17472963</a>, PubMed:<a href="http://www.uniprot.org/citations/18451993" target="\_blank">18451993</a>, PubMed:<a href="http://www.uniprot.org/citations/7794891" target="\_blank">7794891</a>, PubMed:<a href="http://www.uniprot.org/citations/8619991" target="\_blank">8619991</a>, PubMed:<a href="http://www.uniprot.org/citations/9425121" target="\_blank">9425121</a>). Selectively hydrolyzes sn-2 arachidonoyl group from membrane phospholipids, providing the precursor for eicosanoid biosynthesis via the cyclooxygenase pathway (PubMed:<a href="http://www.uniprot.org/citations/10358058" target="\_blank">10358058</a>, PubMed:<a href="http://www.uniprot.org/citations/17472963" target="\_blank">17472963</a>, PubMed:<a href="http://www.uniprot.org/citations/18451993" target="\_blank">18451993</a>, PubMed:<a href="http://www.uniprot.org/citations/7794891" target="\_blank">7794891</a>, PubMed:<a href="http://www.uniprot.org/citations/9425121" target="\_blank">9425121</a>). In an alternative pathway of eicosanoid biosynthesis, hydrolyzes sn-2 fatty acyl chain of eicosanoid lysophospholipids to release free bioactive eicosanoids (PubMed:<a href="http://www.uniprot.org/citations/27642067" target="\_blank">27642067</a>). 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:<a href="http://www.uniprot.org/citations/7794891" target="\_blank">7794891</a>). Has calcium-independent phospholipase A2 and lysophospholipase activities in the presence of phosphoinositides (PubMed:<a href="http://www.uniprot.org/citations/12672805" target="\_blank">12672805</a>). 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:<a href="http://www.uniprot.org/citations/7794891" target="\_blank">7794891</a>).

#### 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)

#### PLA2G4A Antibody (internal region) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **PLA2G4A Antibody (internal region) - Images**



AF3236a (1 µg/ml) staining of HeLa lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### **PLA2G4A Antibody (internal region) - References**

JNK and ceramide kinase govern the biogenesis of lipid droplets through activation of group IVA phospholipase A2. Gubern A, Barceló-Torns M, Barneda D, López JM, Masgrau R, Picatoste F, Chalfant CE, Balsinde J, Balboa MA, Claro E, The Journal of biological chemistry 2009 Nov 284 (47): 32359-69. PMID: 19778898