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PLA2G5 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP14763b

Specification

PLA2G5 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P39877
Other Accession	NP_000920.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**15674**
Antigen Region	**103-132**

PLA2G5 Antibody (C-term) - Additional Information

Gene ID 5322

Other Names
Calcium-dependent phospholipase A2, Group V phospholipase A2, PLA2-10, Phosphatidylcholine 2-acylhydrolase 5, PLA2G5

Target/Specificity
This PLA2G5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 103-132 amino acids from the C-terminal region of human PLA2G5.

Dilution
WB~~1:1000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
PLA2G5 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PLA2G5 Antibody (C-term) - Protein Information

Name PLA2G5

Function Secretory calcium-dependent phospholipase A2 that primarily targets extracellular phospholipids (PubMed:8300559). Hydrolyzes the ester bond of the fatty acyl group attached at sn-2 position of phospholipids (phospholipase A2 activity), preferentially releasing fatty acyl groups with a low degree of unsaturation such as oleoyl (C18:1) and linoleoyl (C18:2) groups (PubMed:8300559, PubMed:14998370, PubMed:23533611). Hydrolyzes low-density lipoprotein (LDL) phospholipids releasing unsaturated fatty acids that drive macrophage polarization toward an M2 phenotype (By similarity). May act in an autocrine and paracrine manner. Contributes to lipid remodeling of cellular membranes at different subcellular locations and generation of lipid mediators involved in pathogen clearance. Cleaves sn-2 fatty acyl chains of cardiolipin, a major component of the inner membrane of mitochondria and bacterial membranes (PubMed:23533611). Promotes phagocytosis of bacteria in macrophages through production of lysophosphatidylethanolamines (PubMed:25725101). Displays bactericidal activity against Gram-positive bacteria by directly hydrolyzing phospholipids of the bacterial membrane (PubMed:11694541). Promotes phagocytosis and killing of ingested fungi likely through controlling phagosome-lysosome fusion and phagosome maturation (By similarity). Plays a role in biosynthesis of cysteinyl leukotrienes (CysLTs) in myeloid cells (PubMed:12124392, PubMed:12796497). In eosinophils, triggers perinuclear arachidonate release and LTC4 synthesis in a PLA2G4A-independent way (PubMed:12796497). In neutrophils, amplifies CysLTs biosynthesis initiated by PLA2G4A (PubMed:12124392). Promotes immune complex clearance in macrophages via stimulating synthesis of CysLTs, which act through CYSLTR1 to trigger phagocytosis (By similarity). May regulate antigen processing in antigen-presenting cells (By similarity). In pulmonary macrophages regulates IL33 production required for activation of group 2 innate lymphoid cells (By similarity). May play a role in the biosynthesis of N-acyl ethanolamines that regulate energy metabolism. Hydrolyzes N-acyl phosphatidylethanolamines to N-acyl lysophosphatidylethanolamines, which are further cleaved by a lysophospholipase D to release N-acyl ethanolamines (PubMed:14998370).

Cellular Location
Secreted. Cell membrane {ECO:0000250|UniProtKB:P97391}. Cytoplasmic vesicle, phagosome {ECO:0000250|UniProtKB:P97391}. Recycling endosome {ECO:0000250|UniProtKB:P97391}. Golgi apparatus, cis-Golgi network {ECO:0000250|UniProtKB:P97391}. Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:P97391}

Tissue Location
Heart, placenta and less abundantly, in lung. Detected in the outer and inner plexiform layers of the retina (at protein level) (PubMed:22137173). Expressed in monocytes and macrophages (PubMed:25725101).

PLA2G5 Antibody (C-term) - 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

PLA2G5 Antibody (C-term) - Images

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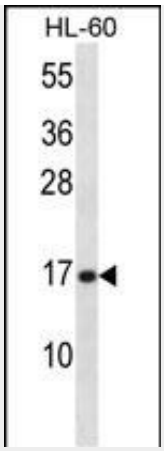
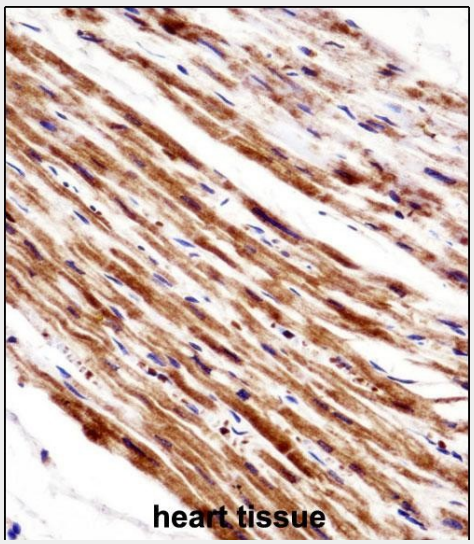


PLA2G5 Antibody (C-term) (Cat. #AP14763b) western blot analysis in HL-60 cell line lysates (35ug/lane).This demonstrates the PLA2G5 antibody detected the PLA2G5 protein (arrow).



PLA2G5 Antibody (C-term) (AP14763b)immunohistochemistry analysis in formalin fixed and paraffin embedded human heart tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PLA2G5 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

PLA2G5 Antibody (C-term) - Background

This gene is a member of the secretory phospholipase A2 family. It is located in a tightly-linked cluster of secretory phospholipase A2 genes on chromosome 1. The encoded enzyme catalyzes the hydrolysis of membrane phospholipids to generate lysophospholipids and free fatty acids including arachidonic acid. It preferentially hydrolyzes linoleoyl-containing phosphatidylcholine substrates. Secretion of this enzyme is thought to induce inflammatory responses in neighboring cells. Alternatively spliced transcript variants have been found, but their full-length nature has not been determined. [provided by RefSeq].

PLA2G5 Antibody (C-term) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)

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Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Wootton, P.T., et al. Hum. Mol. Genet. 16(12):1437-1444(2007)
de Beer, F.C., et al. Arterioscler. Thromb. Vasc. Biol. 26(7):1421-1422(2006)