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Goat Anti-PLA2G2A Antibody (internal region)

Purified Goat Polyclonal Antibody
Catalog # AF4225a

Specification

Goat Anti-PLA2G2A Antibody (internal region) - Product Information

Application	**WB, E**
Primary Accession	P14555
Other Accession	NP_000291.1
Reactivity	**Human**
Predicted	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5**
Calculated MW	**16083**

Goat Anti-PLA2G2A Antibody (internal region) - Additional Information

Gene ID 5320

Other Names
PLA2G2A; phospholipase A2, group IIA (platelets, synovial fluid); MOM1; PLA2; PLA2B; PLA2L; PLA2S; PLAS1; sPLA2; GIIC sPLA2; NPS-PLA2; group IIA phospholipase A2; non-pancreatic secretory phospholipase A2; phosphatidylcholine 2-acylhydrolase 2A; phospholi

Dilution
WB~~1:1000
E~~N/A

Format
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Immunogen
Peptide with sequence C-SYKFSNSGSRIT, from the internal region of the protein sequence according to NP_000291.1.

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
Goat Anti-PLA2G2A Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-PLA2G2A Antibody (internal region) - Protein Information

Name PLA2G2A

Synonyms PLA2B, PLA2L, RASF-A

Function
Secretory calcium-dependent phospholipase A2 that primarily targets extracellular phospholipids with implications in host antimicrobial defense, inflammatory response and tissue regeneration (PubMed:10455175, PubMed:10681567, PubMed:2925633). Hydrolyzes the ester bond of the fatty acyl group attached at sn-2 position of phospholipids (phospholipase A2 activity) with preference for phosphatidylethanolamines and phosphatidylglycerols over phosphatidylcholines (PubMed:10455175, PubMed:10681567). Contributes to lipid remodeling of cellular membranes and generation of lipid mediators involved in pathogen clearance. Displays bactericidal activity against Gram-positive bacteria by directly hydrolyzing phospholipids of the bacterial membrane (PubMed:10358193, PubMed:11694541). Upon sterile inflammation, targets membrane phospholipids of extracellular mitochondria released from activated platelets, generating free unsaturated fatty acids such as arachidonate that is used by neighboring leukocytes to synthesize inflammatory eicosanoids such as leukotrienes. Simultaneously, by compromising mitochondrial membrane integrity, promotes the release in circulation of potent damage-associated molecular pattern molecules that activate the innate immune response (PubMed:25082876). Plays a stem cell regulator role in the intestinal crypt. Within intracellular compartment mediates Paneth cell differentiation and its stem cell supporting functions by inhibiting Wnt signaling pathway in intestinal stem cell (ICS). Secreted in the intestinal lumen upon inflammation, acts in an autocrine way and promotes prostaglandin E2 synthesis that stimulates Wnt signaling pathway in ICS cells and tissue regeneration (By similarity). May play a role in the biosynthesis of N-acyl ethanolamines that regulate energy metabolism and inflammation. Hydrolyzes N-acyl phosphatidylethanolamines to N-acyl lysophosphatidylethanolamines, which are further cleaved by a lysophospholipase D to release N-acyl ethanolamines (PubMed:14998370). Independent of its catalytic activity, acts as a ligand for integrins (PubMed:18635536, PubMed:25398877). Binds to and activates integrins ITGAV:ITGB3, ITGA4:ITGB1 and ITGA5:ITGB1 (PubMed:18635536, PubMed:25398877). Binds to a site (site 2) which is distinct from the classical ligand-binding site (site 1) and induces integrin conformational changes and enhanced ligand binding to site 1 (PubMed:25398877). Induces cell proliferation in an integrin-dependent manner (PubMed:18635536).

Cellular Location
Secreted. Cell membrane; Peripheral membrane protein. Mitochondrion outer membrane; Peripheral membrane protein

Tissue Location
Expressed in various tissues including heart, kidney, liver, lung, pancreas, placenta, skeletal muscle, prostate, ovary, colon and small intestine. Not detected in lymphoid organs and brain (PubMed:10455175, PubMed:10681567). Expressed in platelets (at protein level) (PubMed:25082876).

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Goat Anti-PLA2G2A 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 Cytomety
- Cell Culture

Goat Anti-PLA2G2A Antibody (internal region) - Images

AF4225a (0.1 µg/ml) staining of Placenta lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-PLA2G2A Antibody (internal region) - References

Secreted phospholipase A(2) group IIA is a neurotoxin released by stimulated human glial cells. Villanueva EB, Little JP, Lambeau G, Klegeris A. Molecular and cellular neurosciences 2012 Apr 49 (4): 430-8.