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Goat Anti-PLA2G1B Antibody

Peptide-affinity purified goat antibody
Catalog # AF1837a

Specification

Goat Anti-PLA2G1B Antibody - Product Information

Application	**WB**
Primary Accession	P04054
Other Accession	NP_000919, 5319, 18778 (mouse), 29526 (rat)
Reactivity	**Human**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**16360**

Goat Anti-PLA2G1B Antibody - Additional Information

Gene ID 5319

Other Names
Phospholipase A2, 3.1.1.4, Group IB phospholipase A2, Phosphatidylcholine 2-acylhydrolase 1B, PLA2G1B, PLA2, PLA2A, PPLA2

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, 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
Goat Anti-PLA2G1B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-PLA2G1B Antibody - Protein Information

Name PLA2G1B

Synonyms PLA2, PLA2A, PPLA2

Function
Secretory calcium-dependent phospholipase A2 that primarily targets dietary phospholipids in the intestinal tract (PubMed:1420353, PubMed:<a href="http://www.uniprot.org/citations/10681567"

target="_blank">10681567, PubMed:17603006). 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:1420353, PubMed:10681567, PubMed:17603006). May play a role in the biosynthesis of N-acyl ethanolamines that regulate energy metabolism and inflammation in the intestinal tract. Hydrolyzes N-acyl phosphatidylethanolamines to N-acyl lysophosphatidylethanolamines, which are further cleaved by a lysophospholipase D to release N-acyl ethanolamines (By similarity). May act in an autocrine and paracrine manner (PubMed:7721806, PubMed:25335547). Upon binding to the PLA2R1 receptor can regulate podocyte survival and glomerular homeostasis (PubMed:25335547). Has anti-helminth activity in a process regulated by gut microbiota. Upon helminth infection of intestinal epithelia, directly affects phosphatidylethanolamine contents in the membrane of helminth larvae, likely controlling an array of phospholipid-mediated cellular processes such as membrane fusion and cell division while providing for better immune recognition, ultimately reducing larvae integrity and infectivity (By similarity).

Cellular Location
Secreted. Note=Secreted from pancreatic acinar cells in its inactive form

Tissue Location
Selectively expressed in pancreas, lung, liver and kidney. Also detected at lower levels in ovary and testis

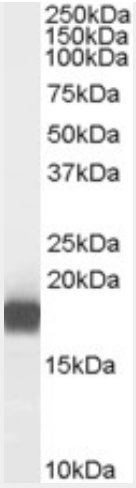
Goat Anti-PLA2G1B Antibody - Protocols

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

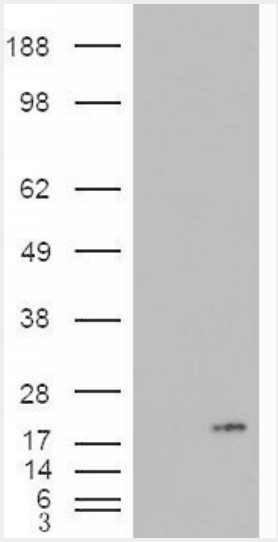
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-PLA2G1B Antibody - Images

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AF1837a (0.01 µg/ml) staining of Human Pancreas lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



HEK293 overexpressing PLA2G1B (RC216089) and probed with AF1837a (mock transfection in first lane), tested by Origene.

Goat Anti-PLA2G1B Antibody - Background

Phospholipase A2 (EC 3.1.1.4) catalyzes the release of fatty acids from glycero-3-phosphocholines. The best known varieties are the digestive enzymes secreted as zymogens by the pancreas of mammals. Sequences of pancreatic PLA2 enzymes from a variety of mammals have been reported. One striking feature of these enzymes is their close homology to venom phospholipases of snakes. Other forms of PLA2 have been isolated from brain, liver, lung, spleen, intestine, macrophages, leukocytes, erythrocytes, inflammatory exudates, chondrocytes, and platelets (Seilhamer et al., 1986 [PubMed 3028739]) .

Goat Anti-PLA2G1B Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
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et al. J Biol Chem, 2009 Jun 12. PMID 19297324.
Regulation of Wnt/beta-catenin pathway by cPLA2alpha and PPARdelta. Han C, et al. J Cell Biochem, 2008 Oct 1. PMID 18636547.
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