

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:10681567, PubMed:1420353)

target="_blank">1420353, 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:10681567, PubMed:1420353, 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:25335547, PubMed:7721806). 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

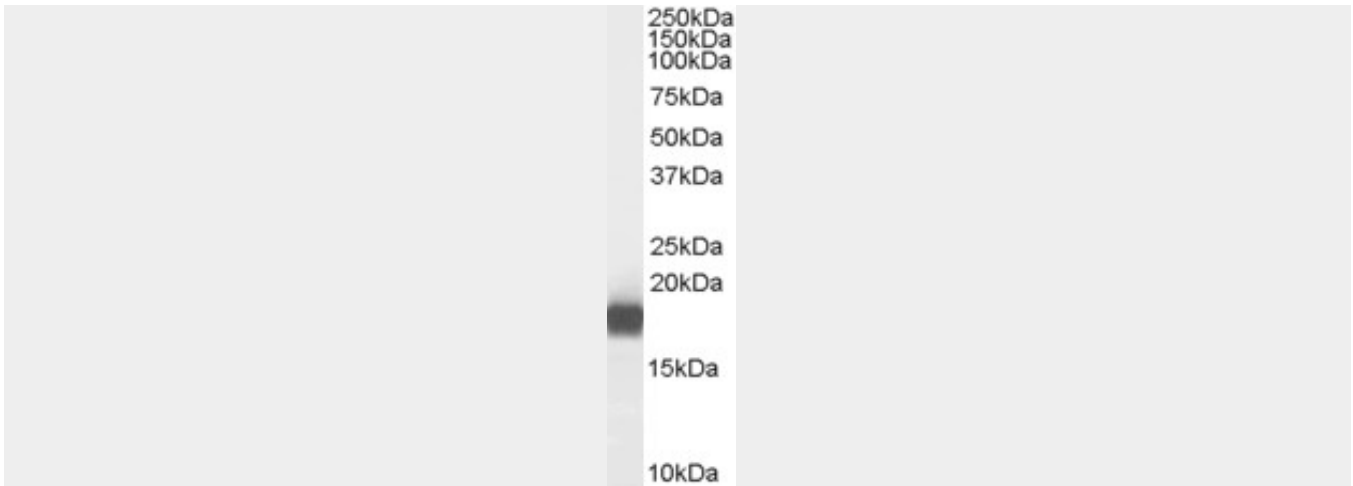
Goat Anti-PLA2G1B Antibody - Protocols

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

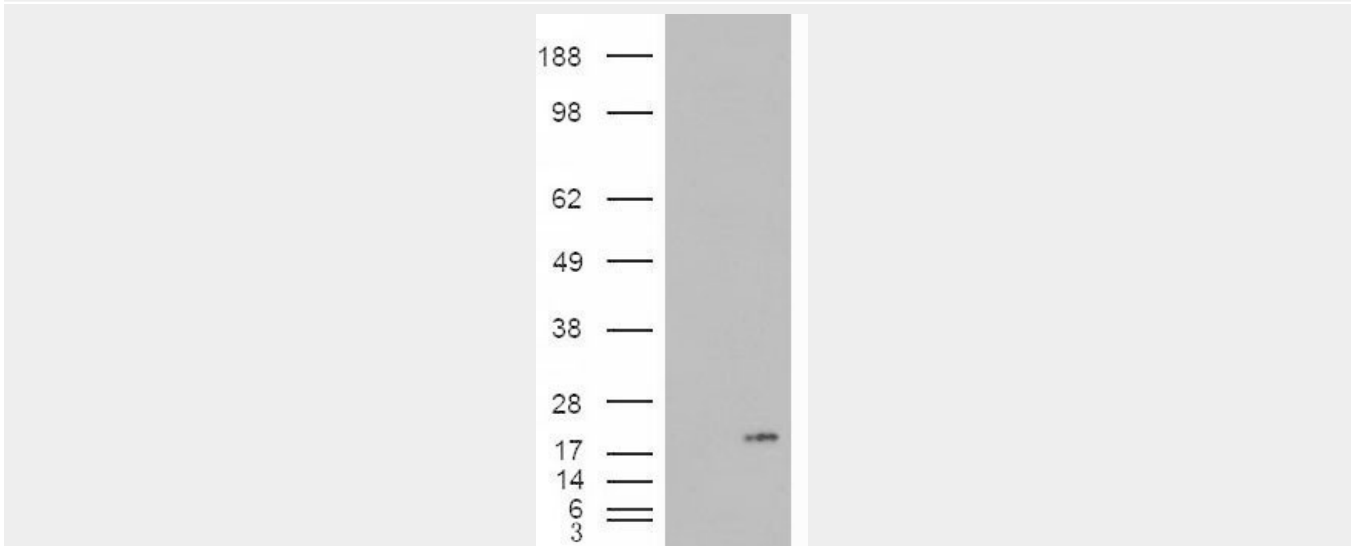
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-PLA2G1B Antibody - Images





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 glycerol-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 Thiazolidinedione-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.
- Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.
- Structural insight into the activation mechanism of human pancreatic phospholipase A2. Xu W,

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.

The effects of beta2 adrenergic receptor gene polymorphism in lipid profiles. Kao WT, et al. Lipids Health Dis, 2008 May 21. PMID 18492292.