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PLA2G1B Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4878b

Product Information

Application	WB, FC, E
Primary Accession	P04054
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22889
Calculated MW	16360
Antigen Region	116-145

Additional Information

Gene ID	5319
Other Names	Phospholipase A2, Group IB phospholipase A2, Phosphatidylcholine 2-acylhydrolase 1B, PLA2G1B, PLA2, PLA2A, PPLA2
Target/Specificity	This PLA2G1B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 116-145 amino acids from the C-terminal region of human PLA2G1B.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
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	PLA2G1B Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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, 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

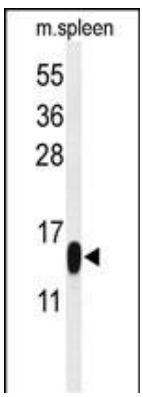
Background

PLA2G1B 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

References

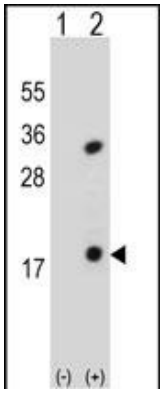
Xu, W., et al. J. Biol. Chem. 284(24):16659-16666(2009)
Han, C., et al. J. Cell. Biochem. 105(2):534-545(2008)
Kao, W.T., et al. Lipids Health Dis 7, 20 (2008)

Images

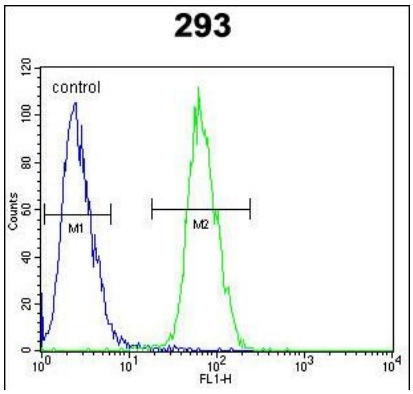


Western blot analysis of PLA2G1B Antibody (C-term) (Cat. #AP4878b) in mouse spleen tissue lysates (35ug/lane). PLA2G1B (arrow) was detected using the purified Pab.

Western blot analysis of PLA2G1B (arrow) using rabbit polyclonal PLA2G1B Antibody (C-term) (Cat. #AP4878b).



293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PLA2G1B gene.



PLA2G1B Antibody (C-term) (Cat. #AP4878b) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.