10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

PLA2G7 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP9819C

Specification

PLA2G7 Antibody (Center) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	O13093
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Antigen Region	200-228

PLA2G7 Antibody (Center) - Additional Information

Gene ID 7941

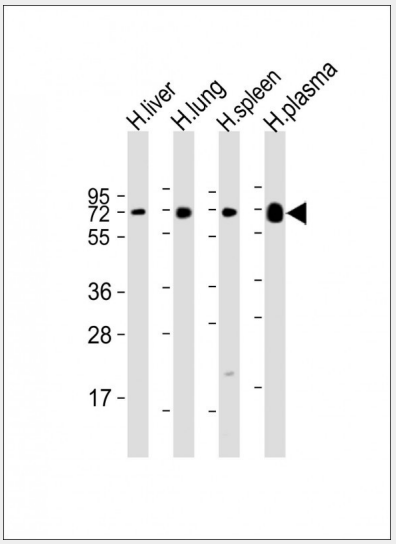
Other Names
Platelet-activating factor acetylhydrolase, PAF acetylhydrolase, 1-alkyl-2-acetylglycerophosphocholine esterase, 2-acetyl-1-alkylglycerophosphocholine esterase, Group-VIIA phospholipase A2, gVIIA-PLA2, LDL-associated phospholipase A2, LDL-PLA(2), PAF 2-acylhydrolase, PLA2G7, PAFAH

Target/Specificity
This PLA2G7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 200-228 amino acids from the Central region of human PLA2G7.

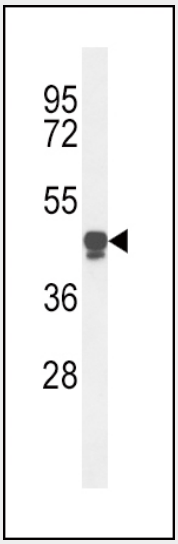
Dilution
WB~~1:1000
IHC-P~~1:10~50
FC~~1:25

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



All lanes : Anti-PLA2G7 Antibody (Center) at 1:2000 dilution Lane 1: human liver lysate Lane 2: human lung lysate Lane 3: human spleen lysate Lane 4: human plasma lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of PLA2G7 Antibody (Center) (Cat. #AP9819c) in HL-60 cell line

weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PLA2G7 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

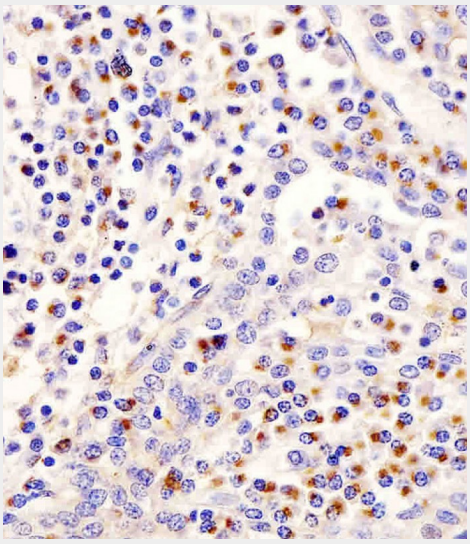
PLA2G7 Antibody (Center) - Protein Information

Name PLA2G7

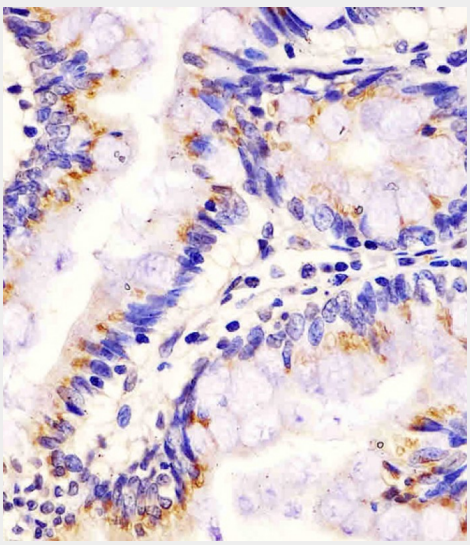
Synonyms PAFAH

Function
Lipoprotein-associated calcium-independent phospholipase A2 involved in phospholipid catabolism during inflammatory and oxidative stress response (PubMed:7700381, PubMed:8624782, PubMed:2040620, PubMed:16371369, PubMed:17090529, PubMed:10066756). At the lipid- aqueous interface, hydrolyzes the ester bond of fatty acyl group attached at sn-2 position of phospholipids (phospholipase A2 activity) (PubMed:2040620, PubMed:10504265). Specifically targets phospholipids with a short-chain fatty acyl group at sn-2 position (PubMed:2040620). Can hydrolyze phospholipids with long fatty acyl chains, only if they carry oxidized functional groups (PubMed:2040620,

lysates (35ug/lane). PLA2G7 (arrow) was detected using the purified Pab.



AP9819C staining PLA2G7 in human tonsil tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



AP9819C staining PLA2G7 in human colon tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature;

PubMed:8624782). Hydrolyzes and inactivates platelet-activating factor (PAF, 1-O-alkyl-2-acetyl-sn-glycero-3-phosphocholine), a potent proinflammatory signaling lipid that acts through PTAFR on various innate immune cells (PubMed:10504265, PubMed:10066756, PubMed:7592717, PubMed:11590221, PubMed:7700381, PubMed:18434304, PubMed:16371369, PubMed:8675689, PubMed:8624782). Hydrolyzes oxidatively truncated phospholipids carrying an aldehyde group at omega position, preventing their accumulation in low-density lipoprotein (LDL) particles and uncontrolled proinflammatory effects (PubMed:2040620, PubMed:7700381). As part of high-density lipoprotein (HDL) particles, can hydrolyze phospholipids having long-chain fatty acyl hydroperoxides at sn-2 position and protect against potential accumulation of these oxylipins in the vascular wall (PubMed:17090529). Catalyzes the release from membrane phospholipids of F2-isoprostanes, lipid biomarkers of cellular oxidative damage

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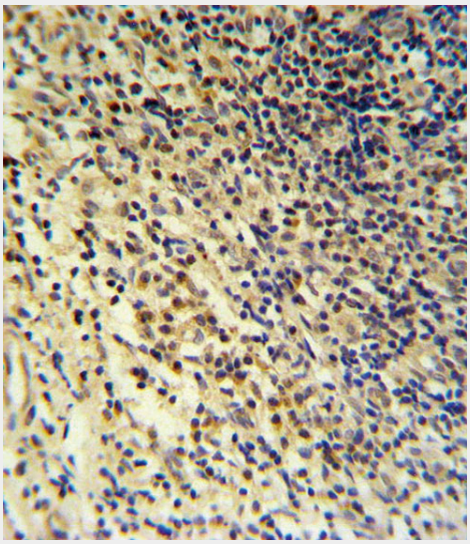
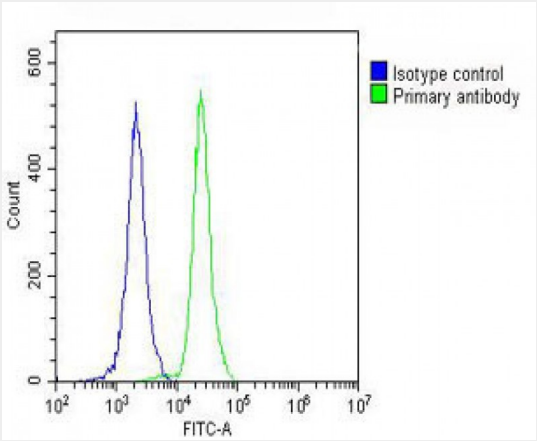


PLA2G7 Antibody (Center) (Cat. #AP9819c) IHC analysis in formalin fixed and paraffin embedded tonsil followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PLA2G7 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



Overlay histogram showing HL-60 cells stained with AP9819C (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP9819C, 1:25 dilution) for 60 min at 37ºC. The secondary

(PubMed:16371369).

Cellular Location
Secreted, extracellular space Note=Associates with both LDL and HDL particles in plasma (PubMed:11590221, PubMed:12821559, PubMed:18434304, PubMed:10066756) Mainly associates with proinflammatory electronegative LDL particles (PubMed:12821559).

Tissue Location
Plasma (PubMed:11590221, PubMed:12821559). Secreted by macrophages (at protein level) (PubMed:11590221)

PLA2G7 Antibody (Center) - 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

PLA2G7 Antibody (Center) - Citations

- Autotaxin Derived From Lipoprotein(a) and Valve Interstitial Cells Promotes Inflammation and Mineralization of the Aortic Valve.

antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

PLA2G7 Antibody (Center) - Background

The protein encoded by this gene is a secreted enzyme that catalyzes the degradation of platelet-activating factor to biologically inactive products. Defects in this gene are a cause of platelet-activating factor acetylhydrolase deficiency.

PLA2G7 Antibody (Center) - References

Fan, P., et al. Hum. Reprod. 25(5):1288-1294(2010)
Paik, J.K., et al. Clin. Chim. Acta 411 (7-8), 486-493 (2010)
Meng, X., et al. Psychiatry Res 175 (1-2), 186-187 (2010)
McGeachie, M., et al. Circulation 120(24):2448-2454(2009)
Cojocaru, I.M., et al. Rom J Intern Med 47(1):61-65(2009)