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PLA2G7 (aa53-64) Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF3940a

Specification

PLA2G7 (aa53-64) Antibody (internal region) - Product Information

Application	**E**
Primary Accession	Q13093
Other Accession	NP_005075.3, 7941
Predicted	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**50077**

PLA2G7 (aa53-64) Antibody (internal region) - Additional Information

Gene ID 7941

Other Names
Platelet-activating factor acetylhydrolase, PAF acetylhydrolase, 3.1.1.47, 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

Dilution
E~~N/A

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 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
PLA2G7 (aa53-64) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

PLA2G7 (aa53-64) Antibody (internal region) - Protein Information

Name PLA2G7

Synonyms PAFAH

Function

Lipoprotein-associated calcium-independent phospholipase A2 involved in phospholipid catabolism during inflammatory and oxidative stress response (PubMed:10066756, PubMed:16371369, PubMed:17090529, PubMed:2040620, PubMed:7700381, PubMed:8624782). At the lipid-aqueous interface, hydrolyzes the ester bond of fatty acyl group attached at sn-2 position of phospholipids (phospholipase A2 activity) (PubMed:10504265, PubMed:2040620). 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, PubMed:8624782). Hydrolyzes and inactivates platelet-activating factor (PAF, 1-O-alkyl- 2-acetyl-sn-glycero-3-phosphocholine), a potent pro-inflammatory signaling lipid that acts through PTAFR on various innate immune cells (PubMed:10066756, PubMed:10504265, PubMed:11590221, PubMed:16371369, PubMed:18434304, PubMed:7592717, PubMed:7700381, PubMed:8624782, PubMed:8675689). Hydrolyzes oxidatively truncated phospholipids carrying an aldehyde group at omega position, preventing their accumulation in low-density lipoprotein (LDL) particles and uncontrolled pro-inflammatory 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 (PubMed:16371369).

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

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

PLA2G7 (aa53-64) 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

PLA2G7 (aa53-64) Antibody (internal region) - Images

PLA2G7 (aa53-64) Antibody (internal region) - Background

Reported variants represent identical protein: NP_005075.3, NP_001161829.1

PLA2G7 (aa53-64) Antibody (internal region) - References

Lipoprotein-associated phospholipase A2 activity in patients with preserved left ventricular ejection fraction. Moldoveanu E, Serban M, Marta DS, Serban I, Huica R. Biomarkers. 2011 Nov;16(7):587-9. PMID: 21942556