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LP-PLA2 / PLA2G7 Antibody
Rabbit Polyclonal Antibody
Catalog # ALS16556

Specification

LP-PLA2 / PLA2G7 Antibody - Product Information

Application	**IHC**
Primary Accession	Q13093
Other Accession	7941
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**50077**

LP-PLA2 / PLA2G7 Antibody - Additional Information

Gene ID 7941

Other Names
PLA2G7, GVIIA-PLA2, PAF acetylhydrolase, PAFAD, PAF 2-acylhydrolase, PAFAH, LDL-PLA(2), LP-PLA2, Group-VIIA phospholipase A2, LDL-PLA2

Target/Specificity
This Polyclonal antibody is directed against human PAF Acetylhydrolase protein. The product was purified from serum by protein A chromatography. Expect reactivity with human PAF Acetylhydrolase. Cross-reactivity with PAF Acetylhydrolase from other so ...

Reconstitution & Storage
PBS, pH 7.4, 0.02% sodium azide. Store at -20°C for up to one year.

Precautions
LP-PLA2 / PLA2G7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

LP-PLA2 / PLA2G7 Antibody - 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:<a

href="http://www.uniprot.org/citations/17090529" target="_blank">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, 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: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 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:11590221, PubMed:12821559, PubMed:18434304, PubMed:10066756) 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)

Volume
50 µl

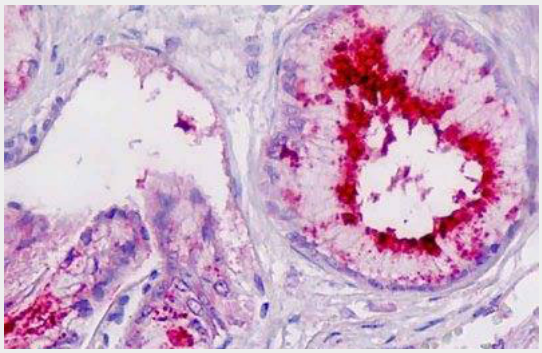
LP-PLA2 / PLA2G7 Antibody - Protocols

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

LP-PLA2 / PLA2G7 Antibody - Images



Anti-LP-PLA2 / PLA2G7 antibody IHC staining of human pancreatic duct.

LP-PLA2 / PLA2G7 Antibody - Background

Modulates the action of platelet-activating factor (PAF) by hydrolyzing the sn-2 ester bond to yield the biologically inactive lyso-PAF. Has a specificity for substrates with a short residue at the sn-2 position. It is inactive against long-chain phospholipids.

LP-PLA2 / PLA2G7 Antibody - References

Tjoelker L.W.,et al.Nature 374:549-553(1995).
Tew D.G.,et al.Arterioscler. Thromb. Vasc. Biol. 16:591-599(1996).
Mungall A.J.,et al.Nature 425:805-811(2003).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Tjoelker L.W.,et al.J. Biol. Chem. 270:25481-25487(1995).