Human PLA2G7/PAF-AH/Lp-PLA2 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF5106

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PLA2G7/PAF-AH/Lp-PLA2 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) PLA2G-2A, recombinant mouse PLA2G-2A, and rhPLA2G-1B is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human PLA2G7/PAF-AH/Lp-PLA2 Met33-Asn441 Accession # AAH38452
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

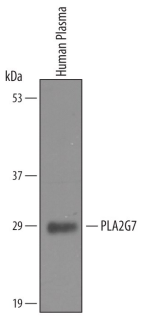
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Cell lysates spiked with Recombinant Human PLA2G7/PAF-AH/Lp-PLA2 (Catalog # 5106-PL), see our available Western blot detection antibodies
Simple Western	10 µg/mL	See Below

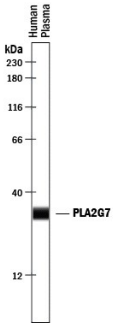
DATA

Western Blot



Detection of Human PLA2G7/PAF-AH/Lp-PLA2 by Western Blot. Western blot shows lysates of human plasma. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human PLA2G7/PAF-AH/Lp-PLA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5106) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for PLA2G7/PAF-AH/Lp-PLA2 at approximately 29 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Simple Western



Detection of Human PLA2G7/PAF-AH/Lp-PLA2 by Simple Western™. Simple Western lane view shows human plasma, loaded at 1:10 dilution. A specific band was detected for PLA2G7/PAF-AH/Lp-PLA2 at approximately 33 kDa (as indicated) using 10 µg/mL of Goat Anti-Human PLA2G7/PAF-AH/Lp-PLA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5106) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Secretory phopholipase A_2 is an enzyme that hydrolyses the *Sn*-2 ester bond of phospholipids, generating free fatty acids and lysophospholipids (1-3). Most secretory PLA_2s are stored in cytoplasmic granules and are released in the extracellular environment on appropriate cell activation. Thus, they are present at higher concentration in the plasma and biologic fluids of patients with systemic inflammatory, autoimmune, or allergic disease, such as acute pancreatitis, rheumatoid arthritis, bronchial asthma, and allergic rhinitis. Also known as Lp-PLA2, PLA2G-VII is a plasma enzyme bound to lipoproteins: 80% bound to LDL, 15%-20% to HDL, and the remainder to VLDL (4-6). It is produced in major by mature macrophages and activated platelets. In contrast to other classical $sPLA_2$s, PLA2G-VII has poor specificity toward *Sn*-2 long chain fatty acids, unless heavily oxidized, and undergoes the catalysis of its substrates in the aqueous phase rather than at the interfacial surface of lipids. Thus, it has high specificity for water-soluble phospholipids in plasma including oxidatively-modified phospholipids and platelet-activating factor (PAF). Because of the latter activity, it is also known as PAF acetylhydrolase (PAF-AH). Lack of human PLA2G-VII is related to a higher risk for stroke and heart disease.

References:

1. Webb, N. R. (2005) Cur. Opin. Lipid. **16:**341.
2. Triggiani, M. *et al*. (2005) J. Allergy Clin. Immunol. **116**:1000.
3. Murakami, M. and Kudo, I. (2004) Biol. Pharm. Bull. **27**:1158.
4. Caslake, M. J. and Packard C. J. (2005) Nat. Clin. Prac. Cardiovasc. Med. **2:**529.
5. Karabina, S.-A., and Ninio, E. (2006) Biochim. Biophys. Acta, **1761**:1351.
6. Karasawa, K. (2006) Biochim. Biophys. Acta, **1761**:1359.

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