Mouse PLA2G2A Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4925

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse PLA2G2A in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant mouse PLA2G2A Asn22-Cys146 Accession # NP_001076000
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 either lyophilized or as a 0.2 μm filtered solution in PBS.

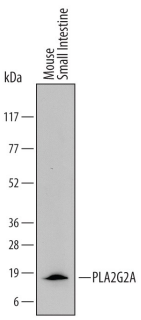
APPLICATIONS

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	0.5 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	5 µg/mL	See Below

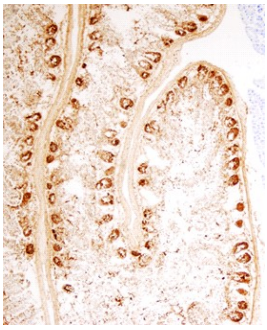
DATA

Western Blot



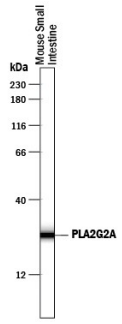
Detection of Mouse PLA2G2A by Western Blot. Western blot shows lysates of mouse small intestine tissue. PVDF Membrane was probed with 0.5 µg/mL of Sheep Anti-Mouse PLA2G2A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4925) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for PLA2G2A at approximately 17 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



PLA2G2A in Mouse Intestine. PLA2G2A was detected in perfusion fixed frozen sections of mouse intestine using Sheep Anti-Mouse PLA2G2A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4925) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to the cytoplasm of epithelial cells in intestinal glands. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Simple Western



Detection of Mouse PLA2G2A by Simple WesternTM. Simple Western lane view shows lysates of mouse small intestine tissue, loaded at 0.2 mg/mL. A specific band was detected for PLA2G2A at approximately 27 kDa (as indicated) using 5 µg/mL of Sheep Anti-Mouse PLA2G2A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4925) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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 Phospholipase A_2 is an enzyme that hydrolyses the *sn*-2 ester bond of phospholipids, generating non-esterified free fatty acids and lysophospholipids (1-3). PLA2G2A is a calcium-dependent phospholipase expressed in many cell types participating in inflammation-associated cellular responses, including platelets, neutrophils, and mast cells. It may function as an enzymatic component of the host defense mechanism. For example, human tears contain a high concentration of PLA2G2A, a principal bactericidal factor against Gram-positive bacteria in this fluid. It may play a role in cell proliferation through binding a receptor on the cell membrane. PLA2G2A has been shown to have pro-atherogenic properties both in the circulation and within the arterial wall (4). It is an acute phase protein expressed in response to a variety of pro-inflammatory cytokines. Circulating levels of sPLA2G2A are higher in coronary artery disease (CAD) patients and are associated with increased risk of future CAD (5).

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. de Beer, F. C. and Webb, N. R. (2006) Arterioscler. Thromb. Vasc. Biol. **26**:1421.
5. Wootton, P. T. E. *et al.* (2006) Human Mol. Genet. **15**:355.

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