

DESCRIPTION

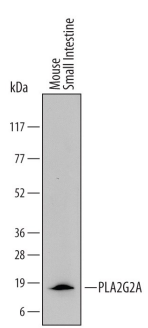

Species Reactivity	Mouse
Specificity	Detects mouse PLA2G2A in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse PLA2G2A Asn22-Cys146 Accession # NP_001076000
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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

<p>Western Blot</p>  <p>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.</p>	<p>Immunohistochemistry</p>  <p>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.</p>
<p>Simple Western</p>  <p>Detection of Mouse PLA2G2A by Simple Western™. 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.</p> 	

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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 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.

BACKGROUND

Secretory Phospholipase A₂ 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.