

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse                                                                                                                             |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse PLA2G2A in Western blots.                                                                                           |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                                              |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                         |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse PLA2G2A<br>Asn22-Cys146<br>Accession # NP_001076000 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                               |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                                      |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                                   |

#### 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Secretory Phospholipase A<sub>2</sub> 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).

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