

#### DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse PLA2G4A in direct ELISAs and 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 human PLA2G4A Met1-Ala749 Accession # NP_077734
<b>Conjugate</b>	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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

PLA2G4A (Phospholipase A2 Group IVA; also cytosolic phospholipase A2 alpha/cPLA2α and lysophospholipase) is an 100-110 kDa member of the cytosolic PLA2 family of enzymes. Expression can be induced in select cell types, including endothelium, smooth muscle, macrophages, PMNs, fibroblasts, mast cells and platelets. Tumor cells often serve as sources for cPLA2α activity. cPLA2α is synthesized in the cytosol where, upon activation, it translocates to sites containing cell membranes, including the Golgi, ER and nuclear membrane. This translocation allows for enzymatic action on membrane phospholipids, generating free arachidonic acid that is converted into proinflammatory eicosanoids. Human cPLA2α is 749 amino acids (aa) in length. It contains a phospholipid-binding and membrane-association C2 domain (aa 1-178), and an overlapping PLA2c domain that demonstrates catalytic activity (aa 140-740). While phosphorylation on Ser505 and Ser727 contribute to activation, there are at least five other utilized phosphorylation sites on the molecule. Phosphorylation may increase the MW of cPLA2α in SDS-Page to about 100 kDa. Full-length (aa 1-749) human PLA2G4A/cPLA2α shares 94% aa sequence identity with mouse PLA2G4A.

#### PRODUCT SPECIFIC NOTICES

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