

## DESCRIPTION

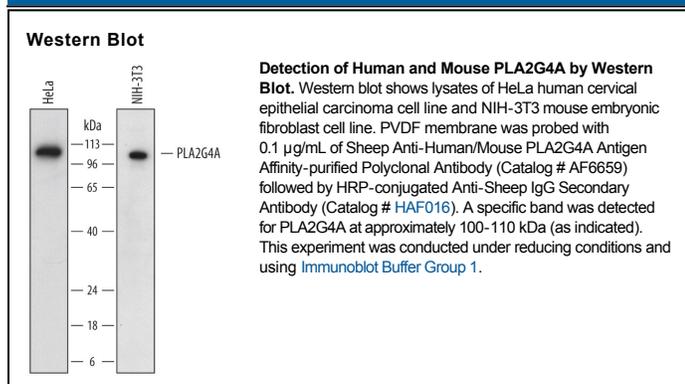
<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse PLA2G4A in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human PLA2G4A Met1-Ala749 Accession # NP_077734
<b>Formulation</b>	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
<b>Western Blot</b>	0.1 µg/mL	See Below

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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.