

## DESCRIPTION

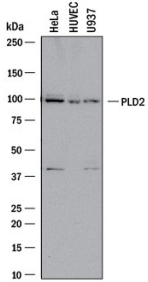
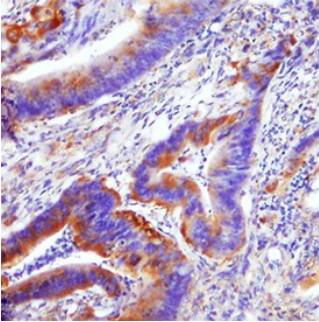
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human PLD2 in direct ELISAs.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PLD2 Met1-His117 Accession # O14939
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below

## DATA

<b>Western Blot</b>	<b>Immunohistochemistry</b>
 <p><b>Detection of Human PLD2 by Western Blot.</b> Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, HUVEC human umbilical vein endothelial cells, and U937 human histiocytic lymphoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human PLD2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF10123) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for PLD2 at approximately 95 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	 <p><b>PLD2 in Human Colon Cancer Tissue.</b> PLD2 was detected in immersion fixed paraffin-embedded sections of human colon cancer tissue using Goat Anti-Human PLD2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF10123) at 10 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in epithelial cells. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.</p>

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<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

Phospholipase D2 (PLD2) is an enzyme encoded by the PLD2 gene. Phosphatidylcholine (PC)-specific phospholipases D (PLDs) catalyze the hydrolysis of PC to produce phosphatidic acid and choline. The Phospholipase D (PLD) lipid-signaling enzyme superfamily has long been studied for its roles in cell communication and a wide range of cell biological processes. Potent PLD2 inhibitors are available, like VU 0364739 hydrochloride (Tocris Cat. 4171) and ML 298 hydrochloride (Tocris Cat. 4895). Three different PLD2 isoforms -PLD2A, PLD2B and PLD2C- have been described, ranging from 38 to 105 KDa.