

## DESCRIPTION

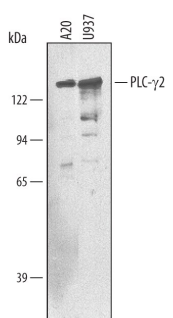
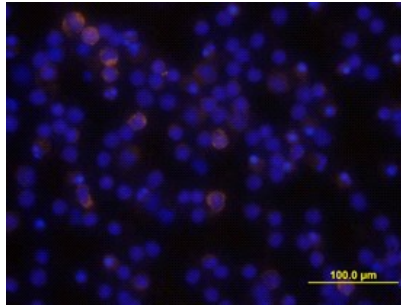
<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse PLC- $\gamma$ 2.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 346404
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PLC- $\gamma$ 2 Pro400-Tyr600 Accession # P16885
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m 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>	1 $\mu$ g/mL	See Below
<b>Immunocytochemistry</b>	8-25 $\mu$ g/mL	See Below

## DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Human/Mouse PLC-<math>\gamma</math>2 by Western Blot.</b> Western blot shows lysates of A20 mouse B cell lymphoma cell line and U937 human histiocytic lymphoma cell line. PVDF membrane was probed with 1 <math>\mu</math>g/mL of Human/Mouse PLC-<math>\gamma</math>2 Monoclonal Antibody (Catalog # MAB3716) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for PLC-<math>\gamma</math>2 at approximately 145 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>PLC-<math>\gamma</math>2 in Human PBMCs.</b> PLC-<math>\gamma</math>2 was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Human/Mouse PLC-<math>\gamma</math>2 Monoclonal Antibody (Catalog # MAB3716) at 10 <math>\mu</math>g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (yellow; Catalog # NL007) and counterstained with DAPI (blue). View our protocol for <a href="#">Fluorescent ICC Staining of Non-adherent Cells</a>.</p>
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## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 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

The Phospholipase C family consists of 13 isozymes within six subfamilies, PLC- $\delta$ , - $\beta$ , - $\gamma$ , - $\epsilon$ , - $\zeta$ , and - $\eta$ . PLC- $\gamma$ 2 (Phospholipase C gamma-2) contains 2 SH2 and 1 SH3 domains and is primarily limited to cells of hematopoietic lineage. PLC- $\gamma$ 2 is activated by receptor tyrosine kinases in response to growth factors, neurotransmitters, and hormones. Activated PLC- $\gamma$ 2 catalyzes the hydrolysis of phosphatidylinositol 4, 5-bisphosphate to produce the second messengers inositol 1, 4, 5-triphosphate (IP3) and diacylglycerol (DAG). IP3 mobilizes the release of calcium while DAG activates protein kinase C. PLC- $\gamma$ 2 is involved in collagen induced signaling in platelets and antigen-dependent signaling in B-lymphocytes.