

## DESCRIPTION

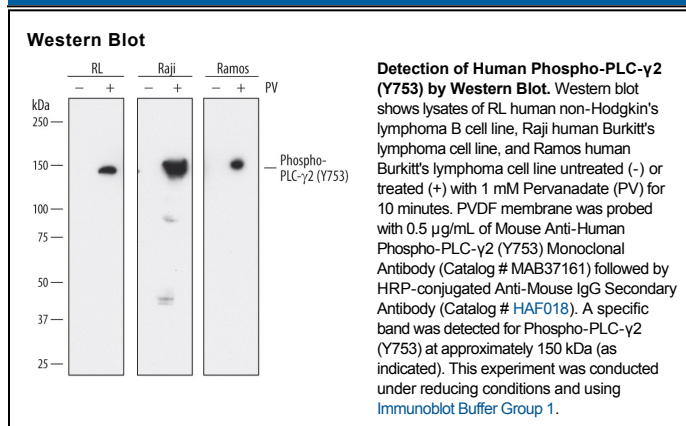
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human PLC- $\gamma$ 2 when phosphorylated at Y753.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 790623
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Phosphopeptide containing the human PLC- $\gamma$ 2 Y753 site 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>	0.5 $\mu$ g/mL	See Below

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 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

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, and downstream through Lck kinase-dependent phosphorylation at Y753 and Y759. 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. Human PLC- $\gamma$ 2 shares 94% and 95% sequence identity overall with mouse and rat PLC- $\gamma$ 2, respectively, and 100% sequence identity within the peptide immunogen.