

DESCRIPTION

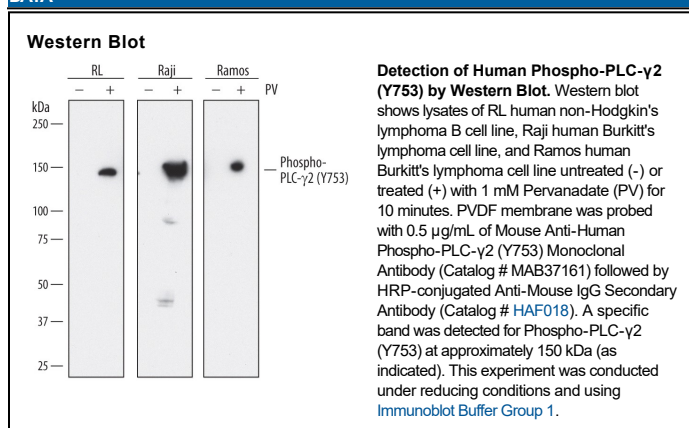
Species Reactivity	Human
Specificity	Detects human PLC-γ2 when phosphorylated at Y753.
Source	Monoclonal Mouse IgG _{2B} Clone # 790623
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing the human PLC-γ2 Y753 site Accession # P16885
Formulation	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.

	Recommended Concentration	Sample
Western Blot	0.5 μg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The Phospholipase C family consists of 13 isozymes within six subfamilies, PLC-δ, -β, -γ, -ε, -ζ, and -η. PLC-γ2 (Phospholipase C gamma-2) contains 2 SH2 and 1 SH3 domains and is primarily limited to cells of hematopoietic lineage. PLC-γ2 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-γ2 catalyzes the hydrolysis of phosphatidylinositol 4, 5-bisphosphate to produce the second messengers inositol 1, 4, 5-trisphosphate (IP3) and diacylglycerol (DAG). IP3 mobilizes the release of calcium while DAG activates protein kinase C. PLC-γ2 is involved in collagen induced signaling in platelets and antigen-dependent signaling in B-lymphocytes. Human PLC-γ2 shares 94% and 95% sequence identity overall with mouse and rat PLC-γ2, respectively, and 100% sequence identity within the peptide immunogen.