

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
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

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