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Anti-PLCγ1 (Tyr-775), Phosphospecific Antibody

Catalog # AN1910

Product Information

Application	WB, ICC, IP
Primary Accession	P19174
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	148532

Additional Information

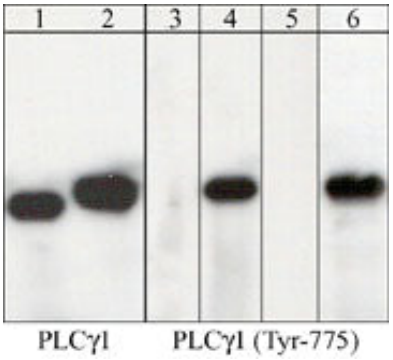
Gene ID	5335
Other Names	Phospholipase C gamma1, phosphodiesterase
Dilution	WB~~1:1000 ICC~~N/A IP~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-PLCγ1 (Tyr-775), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

Phosphoinositide-specific phospholipase C (PLC) plays a significant role in transmembrane signaling. In response to extracellular stimuli such as hormones, growth factors, and neurotransmitters, PLC hydrolyzes phosphatidylinositol 4,5-bisphosphate (PIP2) to generate two secondary messengers: inositol 1,4,5-triphosphate (IP3) and diacylglycerol (DAG). At least four families of PLCs have been identified: PLCβ, PLCγ, PLCδ, and PLCε. Phosphorylation is one of the key mechanisms that regulates the activity of PLC. PLCδ is activated by both receptor and nonreceptor tyrosine kinases. PLCγ1 forms a complex with EGF and PDGF receptors, which leads to phosphorylation at tyrosine 771, 783, and 1245. In addition, antigen receptor-induced activation of PLCγ1 leads to phosphorylation at both Tyr-775 and Tyr-783. These two sites are equally important for activation of enzymatic activity.

Images

Western blot analysis of PLCγ1 immunoprecipitates from human jurkat cells untreated (lanes 1 & 3) or treated with pervanadate (1 mM) for 30 min (lanes 2,4,5,6). Immunoprecipitation was performed with anti-PLCγ1 (PM1561). The blots were probed with anti-PLCγ1 (lanes 1 & 2) and anti-PLCγ1 (Tyr-775) (lanes 3-6). The latter



antibody was used in the presence of phospho- PLCγ1 (Tyr-775) peptide (lane 5), or unrelated phosphotyrosine peptide (lane 6).