

**Anti-PLC $\gamma$ 1 (Tyr-775), Phosphospecific Antibody**  
Catalog # AN1910**Specification****Anti-PLC $\gamma$ 1 (Tyr-775), Phosphospecific Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P19174</a>
Reactivity	Bovine
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	148532

**Anti-PLC $\gamma$ 1 (Tyr-775), Phosphospecific Antibody - Additional Information**

Gene ID 5335

**Other Names**

Phospholipase C gamma1, phosphodiesterase

**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.

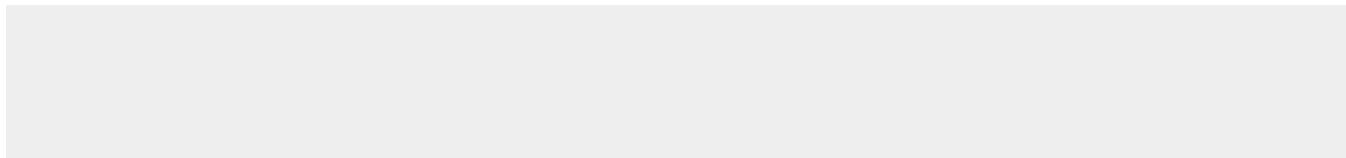
**Precautions**Anti-PLC $\gamma$ 1 (Tyr-775), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.**Shipping**

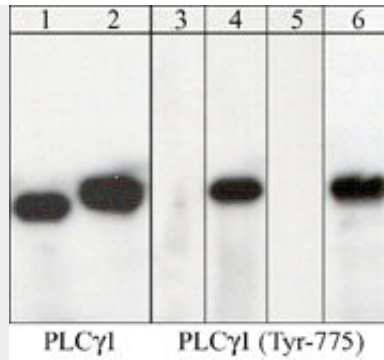
Blue Ice

**Anti-PLC $\gamma$ 1 (Tyr-775), Phosphospecific Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-PLC $\gamma$ 1 (Tyr-775), Phosphospecific Antibody - Images**



Western blot analysis of PLC $\gamma$ 1 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-PLC $\gamma$ 1 (PM1561). The blots were probed with anti-PLC $\gamma$ 1 (lanes 1 & 2) and anti-PLC $\gamma$ 1 (Tyr-775) (lanes 3-6). The latter antibody was used in the presence of phospho- PLC $\gamma$ 1 (Tyr-775) peptide (lane 5), or unrelated phosphotyrosine peptide (lane 6).

### **Anti-PLC $\gamma$ 1 (Tyr-775), Phosphospecific Antibody - 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 (PIP<sub>2</sub>) to generate two secondary messengers: inositol 1,4,5-triphosphate (IP<sub>3</sub>) and diacylglycerol (DAG). At least four families of PLCs have been identified: PLC $\beta$ , PLC $\gamma$ , PLC $\delta$ , and PLC $\epsilon$ . Phosphorylation is one of the key mechanisms that regulates the activity of PLC. PLC $\delta$  is activated by both receptor and nonreceptor tyrosine kinases. PLC $\gamma$ 1 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 PLC $\gamma$ 1 leads to phosphorylation at both Tyr-775 and Tyr-783. These two sites are equally important for activation of enzymatic activity.