

Anti-PLCy1 (N-terminal region) Antibody

Catalog # AN1909

Product Information

| | |
|--------------------------|------------------------|
| Application | WB, ICC, IP |
| Primary Accession | P19174 |
| Host | Mouse |
| Clonality | Mouse Monoclonal |
| Isotype | IgG1 |
| Clone Names | M156 |
| Calculated MW | 148532 |

Additional Information

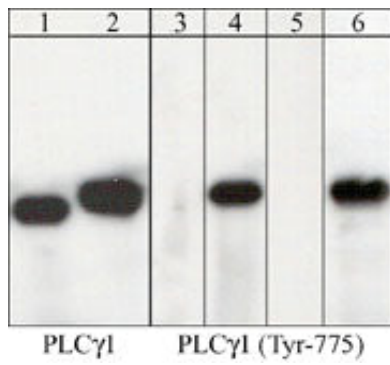
| | |
|--------------------|--|
| Gene ID | 5335 |
| Other Names | Phospholipase C gamma1, phosphodiesterase |
| Dilution | WB~~1:1000 ICC~~N/A IP~~N/A |
| Storage | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| Precautions | Anti-PLCy1 (N-terminal region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |
| Shipping | Blue Ice |

Background

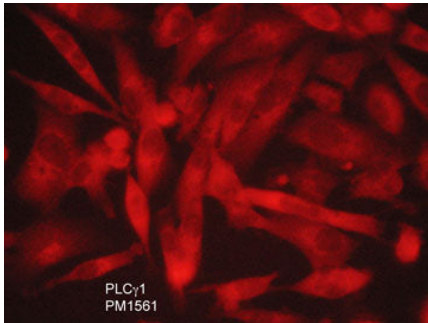
Phosphoinositide-specific phospholipase C (PLC) plays a significant role in transmembrane signaling. In response to extracellular stimuli such as hormones, growth factors, and neurotransmitters, PLC hydrolyzes phosphatidylinositol 4,5-bisphosphate (PIP₂) to generate two secondary messengers: inositol 1,4,5-triphosphate (IP₃) and diacylglycerol (DAG). At least four families of PLCs have been identified: PLC β , PLC γ , PLC δ , and PLC ϵ . Phosphorylation is one of the key mechanisms that regulates the activity of PLC. PLC δ is activated by both receptor and nonreceptor tyrosine kinases. PLC γ 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 γ 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 PLC γ 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 γ 1 (AN1909). The blots were probed with anti-PLC γ 1 (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).



Immunocytochemical labeling of PLCγ1 in adelhyde-fixed and NP-40 permeabilized human MDA-MB-231 breast carcinoma cells. The cells were labeled with mouse monoclonal anti-PLCγ1 (AN1909) antibody. The antibody was detected using appropriate secondary antibody conjugated to DyLight® 594.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.