

phospho-PLC γ 1 (Tyr-775) Blocking Peptide

Cat. # **PX1495**

Size **50 μ g**

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 regulate the activity of PLC. PLC δ is activated by both receptor and nonreceptor tyrosine kinases. PLC γ 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 γ 1 leads to phosphorylation at both Tyr-775 and Tyr-783. These two sites are equally important for activation of enzymatic activity.

References:

Obermeier, A. et al. (1996) EMBO J. 15:73.
Chen, P. et al. (1996) J Cell. Biol. 134:689.
Serrano, C.J. et al. (2005) J. Immunol. 174:6233.

Peptide Sequence:

PLC γ 1 (Tyr-775) synthetic peptide corresponds to amino acids around tyrosine 775 in human PLC γ 1. This sequence has high homology to the conserved site in rat and mouse PLC γ 1, and has low homology to PLC γ 2.

Buffer and Storage:

Blocking Peptide is supplied in 50 μ l phosphate-buffered saline and 0.05% sodium azide. Store at -20° C. Stable for 1 year.

Applications:

Antibody Blocking 1 μ g/ml¹
ELISA 10-100 ng/well²

End user should determine optimal concentration dependent on the concentration of the antibody.

¹Recommended for blocking antibody reactivity in Western blot and immunocytochemistry.

²Established in 96-well Nunc immunoplates where peptide was bound to plates for 2 hrs in 0.1 M sodium carbonate buffer, pH 8.5.

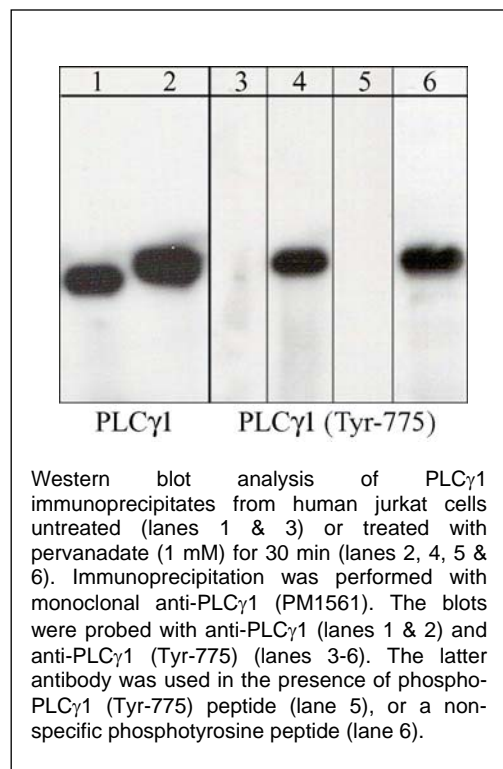
Specificity:

The peptide is specifically recognized by anti-PLC γ 1 (Tyr-775) phospho-specific antibody (PP1491) in ELISA, and has been shown to block the reactivity of PP1491 during Western blot. In addition, the peptide is recommended for use in blocking PP1491 reactivity in immunocytochemistry.

Related Products:

PM1561 PLC γ 1 (N-terminal region) Mouse Monoclonal

PP1491 PLC γ 1 (Tyr-775), phospho-specific Rabbit Polyclonal



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