

## Product datasheet for **AP06287PU-N**

### Phospholipase C gamma 1 (PLCG1) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 740-790 of Human PLC $\gamma$ 1.
Specificity:	This antibody detects endogenous levels of PLCG1 protein. (region surrounding Gly777)
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 155 kDa
Gene Name:	phospholipase C gamma 1
Database Link:	<a href="#">Entrez Gene 5335 Human P19174</a>



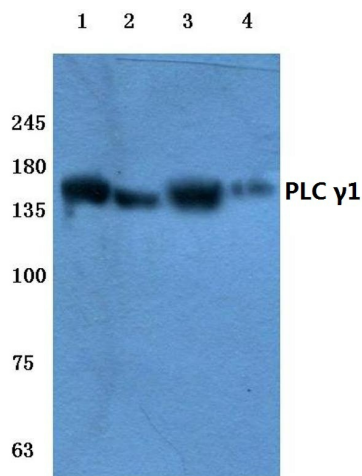
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**Background:**

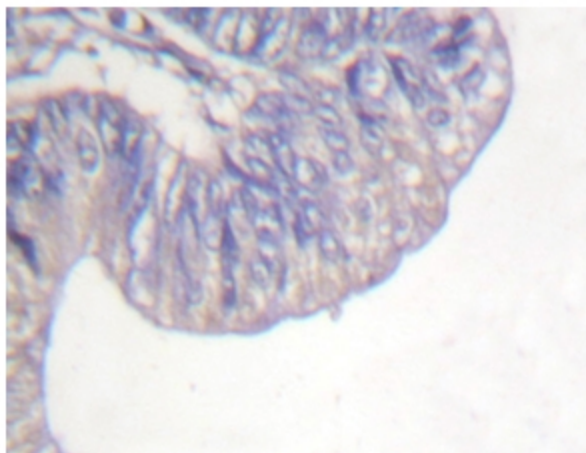
Phosphoinositide-specific phospholipase C (PLC) plays a crucial role in the initiation of receptor mediated signal transduction through the generation of the two second messengers, inositol 1,4,5-triphosphate and diacylglycerol from phosphatidylinositol 4,5-bisphosphate. There are many mammalian PLC isozymes, including PLC  $\beta$ 1, PLC  $\beta$ 2, PLC  $\beta$ 3, PLC  $\beta$ 4, PLC  $\gamma$ 1, PLC  $\gamma$ 2, PLC  $\delta$ 1, PLC  $\delta$ 2 and PLC  $\epsilon$ . PLC  $\gamma$ 1 is widely distributed in bronchiolar epithelium, type I and II pneumocytes and fibroblasts of the interstitial tissue. Actinregulatory protein Villin is tyrosine phosphorylated and associates with PLC  $\gamma$ 1 in the brush border of intestinal epithelial cells. Villin regulates PLC  $\gamma$ 1 activity by modifying its own ability to bind phosphatidylinositol 4,5-biphosphate. PLC  $\gamma$ 1 binds  $\alpha$ 1 $\beta$ 1 Integrin and modulates  $\alpha$ 1 $\beta$ 1 Integrin-specific adhesion. PLC  $\gamma$ 1 and Ca<sup>2+</sup> play a direct role in VEGF-regulated endothelial growth, however this signaling pathway is not linked to FGF-mediated effects in primary endothelial cells. PLC  $\gamma$ 1 is rapidly activated in response to growth factor stimulation and plays an important role in regulating cell proliferation and differentiation, and may have a protective function during cellular response to oxidative stress.

**Synonyms:**

PLC1, Phospholipase C-gamma-1, PLC-gamma-1, PLC gamma1 Phospholipase C-II, PLC-II, PLC-148

**Product images:**

Western blot (WB) analysis of PLC  $\gamma$ 1 antibody at 1/500 dilution Lane 1:Hela whole cell lysate Lane 2:sp2/0 whole cell lysate Lane 3:PC12 whole cell lysate Lane 4:HEK293T whole cell lysate



Immunohistochemistry (IHC) analyzes of PLCG1 antibody in paraffin-embedded human breast carcinoma tissue.