

## Product datasheet for **AP20282PU-M**

### 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
Specificity:	This antibody detects endogenous levels of PLC $\gamma$ 1 protein.
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE)
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 18803 Mouse</a> <a href="#">Entrez Gene 25738 Rat</a> <a href="#">Entrez Gene 5335 Human</a> <a href="#">P19174</a>



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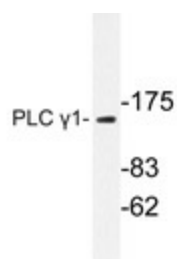
**Background:** Phosphoinositide-specific phospholipase C (PLC) plays a crucial role in the initiation of receptor mediated signal transduction through the generation of the two second messengers, inositol 1,4,5-triphosphate and diacylglycerol from phosphatidylinositol 4,5-bisphosphate. There are many 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-bisphosphate. PLC  $\gamma$ 1 binds  $\alpha$ 1 $\beta$ 1 Integrin and modulates  $\alpha$ 1 $\beta$ 1 Integrin-specific adhesion. PLC  $\gamma$ 1 and  $\text{Ca}^{2+}$  play a direct role in VEGF-regulated endothelial growth, however this signaling pathway is not linked to FGF-mediated effects in primary endothelial cells.

**Synonyms:** PLC1, Phospholipase C-gamma-1, PLC-gamma-1, PLC gamma1 Phospholipase C-II, PLC-II, PLC-148

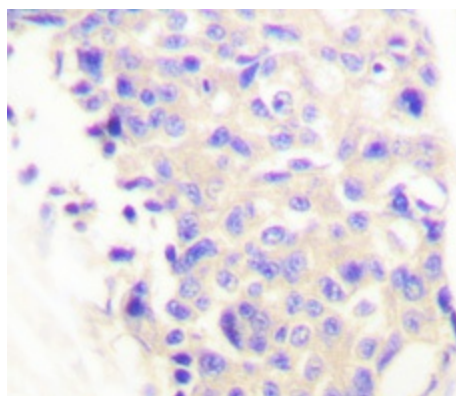
**Protein Families:** Druggable Genome

**Protein Pathways:** Calcium signaling pathway, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Glioma, Inositol phosphate metabolism, Leukocyte transendothelial migration, Metabolic pathways, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pathways in cancer, Phosphatidylinositol signaling system, T cell receptor signaling pathway, VEGF signaling pathway, Vibrio cholerae infection

## Product images:



Western blot analysis of PLC  $\gamma$ 1 antibody ([AP20282PU-NJ]) in extracts from COS7 cells.



Immunohistochemistry analyzes of PLC  $\gamma$ 1 antibody ([AP20282PU-NJ]) in paraffin-embedded human breast carcinoma tissue.