

## Product datasheet for **AP20281PU-S**

### Phospholipase C beta 3 (PLCB3) 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 $\beta$ 3 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:	~ 150 kDa
Gene Name:	phospholipase C beta 3
Database Link:	<a href="#">Entrez Gene 18797 Mouse</a> <a href="#">Entrez Gene 29322 Rat</a> <a href="#">Entrez Gene 5331 Human</a> <a href="#">Q01970</a>



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**Background:**

Phosphoinositide-specific phospholipase C (PLC) plays a critical 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 biphosphate. A total of eight mammalian PLC isozymes have been described (PLC  $\beta$ 1, PLC  $\beta$ 2, PLC  $\beta$ 3, PLC  $\beta$ 4, PLC  $\gamma$ 1, PLC  $\gamma$ 2, PLC  $\delta$ 1 and PLC  $\delta$ 2) with molecular weights ranging from 85 to 150 kDa. The  $\gamma$ -type enzymes are unique in that they contain SH2 and SH3 domains. Moreover, the two  $\gamma$ -type enzymes, but not the  $\beta$  and  $\delta$  isozymes, are subject to activation by a number of protein tyrosine kinases which associate with their SH2 domains and induce their activation by phosphorylation. In contrast, activation of PLC  $\beta$ 1, PLC  $\beta$ 2 and PLC  $\beta$ 3 is mediated by the  $\alpha$  subunits of the Gq class of heterotrimeric G proteins and by certain  $\beta\gamma$  G protein subunits. The regulatory mechanisms for PLC  $\delta$ 1 and PLC  $\delta$ 2 are as yet not resolved.

**Synonyms:**

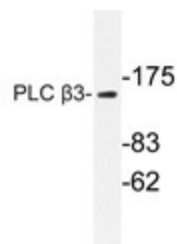
PLC-beta-3, Phospholipase C-beta-3

**Protein Families:**

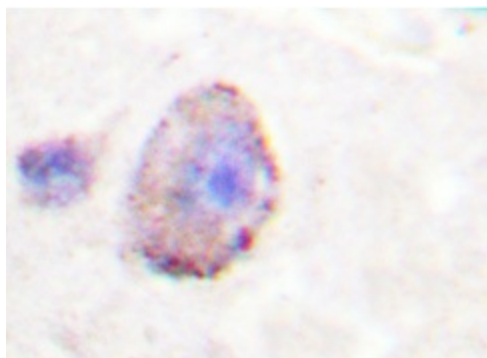
Druggable Genome

**Protein Pathways:**

Alzheimer's disease, Calcium signaling pathway, Chemokine signaling pathway, Gap junction, GnRH signaling pathway, Huntington's disease, Inositol phosphate metabolism, Long-term depression, Long-term potentiation, Melanogenesis, Metabolic pathways, Phosphatidylinositol signaling system, Vascular smooth muscle contraction, Wnt signaling pathway

**Product images:**

Western blot analysis of PLC  $\beta$ 3 antibody ([AP20281PU-N]) in extracts from HeLa cells.



Immunohistochemistry analyzes of PLC  $\beta$ 3 antibody ([AP20281PU-N]) in paraffin-embedded human brain tissue.