

## Product datasheet for **TA322975**

### PLCG 2 (PLCG2) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:500-2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Fusion protein corresponding to N terminal 300 amino acids of human phospholipase C, gamma 2 (phosphatidylinositol-specific)
Formulation:	PBS pH7.3, 0.05% NaN <sub>3</sub> , 50% glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	150 kDa
Gene Name:	phospholipase C gamma 2
Database Link:	<a href="#">NP_002652</a> <a href="#">Entrez Gene 29337 Rat</a> <a href="#">Entrez Gene 234779 Mouse</a> <a href="#">Entrez Gene 5336 Human</a> <a href="#">P16885</a>



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**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 (PIP<sub>2</sub>) to generate two secondary messengers: inositol 1,4,5-triphosphate (IP<sub>3</sub>) and diacylglycerol (DAG). At least four families of PLCs have been identified: PLC $\beta$ , PLC $\delta$ , PLC $\zeta$  and PLC $\gamma$ . The PLC $\gamma$  subfamily includes four members, PLC $\gamma$ 1-4. All four members of the subfamily are activated by  $\beta$ - or  $\gamma$ -subunits of the heterotrimeric G-proteins. Phosphorylation is one of the key mechanisms that regulates the activity of PLC. Phosphorylation of Ser1105 by PKA or PKC inhibits PLC $\gamma$ 3 activity. Ser537 of PLC $\gamma$ 3 is phosphorylated by CaMKII, and this phosphorylation may contribute to the basal activity of PLC $\gamma$ 3. PLC $\gamma$  is activated by both receptor and nonreceptor tyrosine kinases. PLC $\gamma$  forms a complex with EGF and PDGF receptors, which leads to the phosphorylation of PLC $\gamma$  at Tyr771, 783 and 1245. Phosphorylation by Syk at Tyr783 activates the enzymatic activity of PLC $\gamma$ 1. PLC $\gamma$ 2 is engaged in antigen-dependent signaling in B cells and collagen-dependent signaling in platelets. Phosphorylation by Btk or Lck at Tyr753, 759, 1197 and 1217 is correlated with PLC $\gamma$ 2 activity.

**Synonyms:**

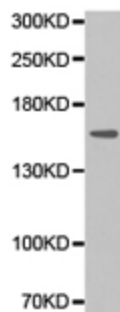
APLAID; FCAS3; PLC-gamma-2; PLC-IV

**Protein Families:**

Druggable Genome

**Protein Pathways:**

B cell receptor signaling pathway, 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, VEGF signaling pathway, Vibrio cholerae infection

**Product images:**

Predicted band size: 150 kDa. Positive control: Ramos cell lysate. Recommended dilution: 1/500-2000. (Gel: 8%SDS-PAGE Lysate: 40 ug Primary antibody: 1/500 dilution Secondary antibody: Goat anti Rabbit IgG - H&L (HRP) at 1/10000 dilution Exposure time: 1 minute)