

## PLCG2

**Reactivity:** Human Mouse Rat

**Tested applications:** WB IHC IF IP

**Recommended Dilution:** WB 1:500 - 1:2000 IHC 1:50 - 1:200 IF 1:20 - 1:100 IP 1:20 - 1:100

**Calculated MW:** 150kDa

**Observed MW:** Refer to Figures

**Immunogen:**

Recombinant protein of human PLCG2

**Storage Buffer:**

Store at -20. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

**Concentration:**

q

**Synonym:**

PLCG2;APLAID;FCAS3;

**Catalog #:** A2182

**Antibody Type:**

Polyclonal Antibody

**Species:** Rabbit

**Gene ID:** 5336

**Isotype:** IgG

**Swiss Prot:** P16885

**Purity:** Affinity purification

For research use only.

**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) (1). At least four families of PLCs have been identified: PLC, PLC, PLC and PLC. The PLC subfamily includes four members, PLC1-4. All four members of the subfamily are activated by - or --subunits of the heterotrimeric G-proteins (2,3). Phosphorylation is one of the key mechanisms that regulates the activity of PLC. Phosphorylation of Ser1105 by PKA or PKC inhibits PLC3 activity (4,5). Ser537 of PLC3 is phosphorylated by CaMKII, and this phosphorylation may contribute to the basal activity of PLC3. PLC is activated by both receptor and nonreceptor tyrosine kinases (6). PLC forms a complex with EGF and PDGF receptors, which leads to the phosphorylation of PLC at Tyr771, 783 and 1245 (7). Phosphorylation by Syk at Tyr783 activates the enzymatic activity of PLC1 (8). PLC2 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 PLC2 activity (9,10)

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