



## PLCG2 Polyclonal Antibody

E92182

**Catalog Number:** E92182**Amount:** 100ul

**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 $\beta$ , PLC $\gamma$ , PLC $\delta$  and PLC $\epsilon$ . The PLC $\beta$  subfamily includes four members, PLC $\beta$ 1-4. All four members of the subfamily are activated by  $\alpha$ - or  $\beta$ - $\gamma$ -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 PLC $\beta$ 3 activity (4,5). Ser537 of PLC $\beta$ 3 is phosphorylated by CaMKII, and this phosphorylation may contribute to the basal activity of PLC $\beta$ 3. PLC $\gamma$  is activated by both receptor and nonreceptor tyrosine kinases (6). PLC $\gamma$  forms a complex with EGF and PDGF receptors, which leads to the phosphorylation of PLC $\gamma$  at Tyr771, 783 and 1245 (7). Phosphorylation by Syk at Tyr783 activates the enzymatic activity of PLC $\gamma$ 1 (8). 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 (9,10)

**Species:** Rabbit**Isotype:** IgG

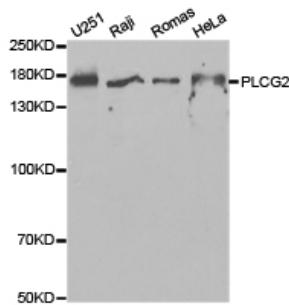
**Storage/Stability:** Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

**Synonyms:** PLCG2;APLAID;FCAS3;**Immunogen:** Recombinant protein of human PLCG2**Purification:** Affinity purification**Reactivity:** H M R**Applications:** WB IHC**Molecular Weight:** 150kDa**Swiss-Prot No.:** P16885**Gene ID:** 5336

**References:** 1. Singer, W. D. et al. (1997) Annu. Rev. Biochem. 66, 475-509. 2. Smrcka, A. V. et al. (1991) Science 251, 804-807. 3. Taylor, S. J. et al. (1991) Nature 350, 516-518. 4. Yue, C. et al. (1998) J. Biol. Chem. 273, 18023-18027. 5. Yue, C. et al. (2000) J. Biol. Chem. 275, 30220-30225. 6. Margolis, B. et al. (1989) Cell 57, 1101-1107. 7. Kim, H. K. et al. (1991) Cell 65, 435-441. 8. Wang, Z. et al. (1998) Mol. Cell. Biol. 18, 590-597. 9. Watanabe, D. et al. (2001) J. Biol. Chem. 276, 38595-38601. 10. Ozdener, F. et al. (2002) Mol. Pharmacol. 62, 672-679.

WB 1:500 - 1:2000

IHC 1:50- 1:200



Western blot analysis of extracts of various celllines,usingPLCG2 antibody.