

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 β , PLC γ , PLC δ and PLC ζ . The PLC subfamily includes four members, PLC1-4. All four members of the subfamily are activated by α or β -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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