

## Anti-phospho-PLCG1 (Tyr783)

Rabbit Polyclonal Antibody

**Catalog # P40-465R**

Lot # J1178-20

### Cited Applications

WB

*Suggested Dilutions:*

WB: 1:500-1:1000

*Ideal working dilutions for each application should be empirically determined by the investigator.*

### Specificity

Recognizes the PLCG1 protein phosphorylated at tyrosine 783

### Cross Reactivity

Human, Mouse and Rat

### Host/Isotype/Clone#

Rabbit, IgG

### Immunogen

Synthetic phospho-peptide corresponding to amino acid residues surrounding Tyr783

### Formulation

PBS (pH 7.4) 150mM NaCl, 0.02% sodium azide and 50% glycerol.

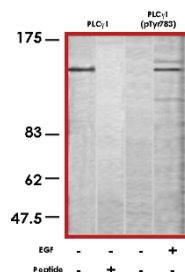
### Scientific Background

Phospholipase C gamma 1 (PLCG1) plays an important role in the intracellular transduction of messages from active receptor-mediated tyrosine kinases. PLCG1 catalyzes the formation of the second-messenger molecules inositol 1, 4, 5-trisphosphate and diacylglycerol from phosphatidylinositol 4, 5-bisphosphate. PLCG1 is a substrate for heparin-binding growth factor 1 activated tyrosine kinase. PLCG1 inhibits growth factor receptor-mediated invasion of breast and prostate tumor cells and is a physiological guanine nucleotide exchange factor for the nuclear GTPase PIKE (1). PLCG1 is phosphorylated at Tyr771/783/1245 upon interaction with EGF and PDGF (2) and the Tyr783 of PLCG1 is phosphorylated directly by SYK (3).

### References

1. Ye, K. et al: Phospholipase C-gamma-1 is a physiological guanine nucleotide exchange factor for the nuclear GTPase PIKE. *Nature* 415: 541-544, 2002.
2. Kim H K. et al: PDGF stimulation of inositol phospholipid hydrolysis requires PLC-gamma 1 phosphorylation on tyrosine residues 783 and 1254. *Cell*. 1991 May 3;65(3):435-41.
3. Wang Z. et al: Requirement for phospholipase c-gamma1 enzymatic activity in growth factor-induced mitogenesis. *Mol Cell Biol*. 1998 Jan;18(1):590-7.

### Sample Data



Western blot analysis of extracts from A431 cells untreated or treated with EGF (200ng/ml, 10min) using PLCG1 antibody (lanes 1 and 2) and anti-phospho-PLCG1 (Tyr783) antibody (lanes 3 and 4).

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Specific Lot Number

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Purification

Affinity chromatography

Stability

1yr at -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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