For Research Use Only

Phospho-PLCG1 (Tyr783) Polyclonal antibody

Catalog Number:29566-1-AP

1 Publications

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Basic Information

Catalog Number:
29566-1-AP

Size:
600 μg/ml

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
BC144136

GeneID (NCBI):
5335

UNIPROT ID:
P19174

Full Name:
phospholipase C, gamma 1

Observed MW:
150 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:2000

Applications

Tested Applications:
WB, ELISA

Cited Applications:
WB

Species Specificity:
Human

Cited Species:
human

Positive Controls:

WB : λ phosphatase treated Jurkat cells,

Background Information

Phosphoinositide phospholipase C-gamma-1 (PLCG1) which belongs to the phosphoinositide-specific phospholipase C (PLC) family, is activated by many extracellular stimuli including hormones, neurotransmitters, and growth factors and modulates several cellular and physiological functions necessary for tumorigeneses such as cell survival, migration, invasion, and angiogenesis by generating inositol 1,4,5-triphosphate (IP3) and diacylglycerol (DAG) via hydrolysis of phosphatidylinositol 4,5-biphosphate (PIP2) (PMID: 9242915). Phosphorylation is one of the key mechanisms that regulate the activity of PLC. PLC γ is activated by both receptor and non-receptor tyrosine kinases (PMID: 2472218). PLC γ forms a complex with EGF and PDGF receptors, which leads to the phosphorylation of PLC γ at Tyr771, 783, and 1248 (PMID: 1708307). It has also been shown that PKA-mediated phosphorylation at Ser1248 is inhibitory to PLC γ 1 tyrosine phosphorylation and phospholipase activity in CD3-treated Jurkat cells (PMID: 1370476), suggesting that Ser1248 may be an allosteric regulator of PLC γ 1 activity.

Notable Publications

Author	Pubmed ID	Journal	Application
Zhongyi Wang	39402337	Commun Biol	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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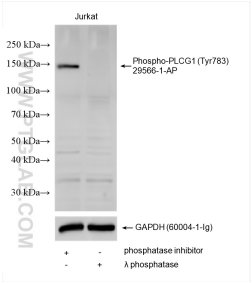
Selected Validation Data



Phosphatase inhibitor treated and λ phosphatase treated Jurkat cells were subjected to SDS PAGE followed by western blot with 29566-1-AP (Phospho-PLCG1 (Tyr783) antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.