

PLCG1 Recombinant antibody

Catalog Number: 84941-4-RR

Basic Information

Catalog Number:

84941-4-RR

Concentration:

1000 µg/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG27218

GenBank Accession Number:**GeneID (NCBI):**

5335

UNIPROT ID:

P19174

Full Name:

phospholipase C, gamma 1

Calculated MW:

149 kDa

Observed MW:

149 kDa

Purification Method:

Protein A purification

CloneNo.:

242529B11

Recommended Dilutions:

WB 1:5000-1:50000

Applications

Tested Applications:

WB, ELISA

Species Specificity:

human, mouse, rat

Positive Controls:

WB : HEK-293 cells, Jurkat cells, MCF-7 cells, C6 cells, mouse brain tissue, rat brain tissue

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 tumorigenesis 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-bisphosphate (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.

Storage

Storage:

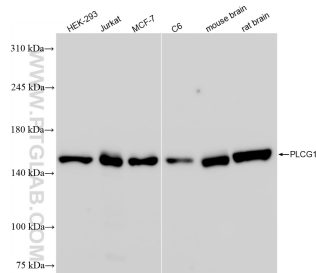
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

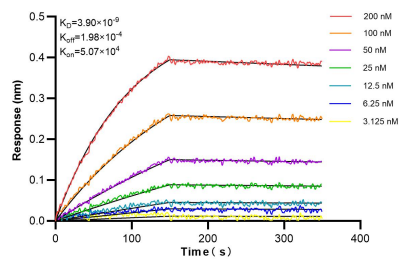
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 84941-4-RR (PLCG1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Biolayer interferometry (BLI) kinetic assays of 84941-4-RR against Human PLCG1 were performed. The affinity constant is 3.90 nM.