

PLCG1 Recombinant antibody

Catalog Number: 84941-1-RR

Basic Information

Catalog Number: 84941-1-RR	GenBank Accession Number: GeneID (NCBI): 5335	Purification Method: Protein A purification
Concentration: 1000 µg/ml	UNIPROT ID: P19174	CloneNo.: 242529A11
Source: Rabbit	Full Name: phospholipase C, gamma 1	Recommended Dilutions: WB: 1:1000-1:5000 IHC: 1:250-1:1000 IF/ICC: 1:125-1:500
Isotype: IgG	Calculated MW: 149 kDa	
Immunogen Catalog Number: AG27218		

Applications

Tested Applications: WB, IHC, IF/ICC, ELISA	Positive Controls:
Species Specificity: human	WB : HEK-293 cells, Jurkat cells, MCF-7 cells
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	IHC : human breast cancer tissue, human liver cancer tissue
	IF/ICC : Jurkat cells, HEK-293 cells

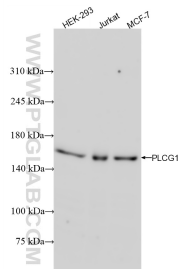
Background Information

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 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.

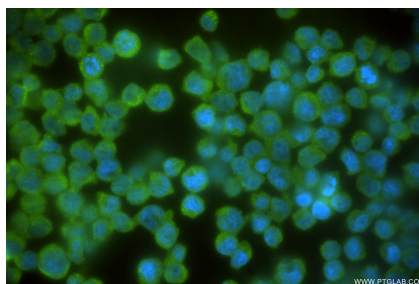
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

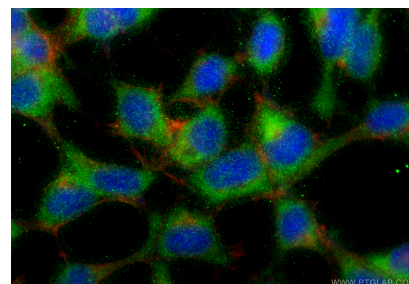
Selected Validation Data



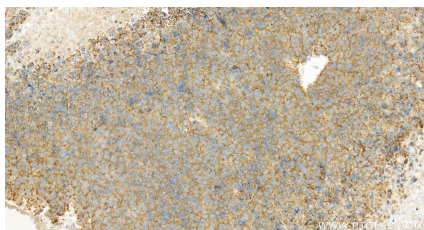
Various lysates were subjected to SDS PAGE followed by western blot with 84941-1-RR (PLCG1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



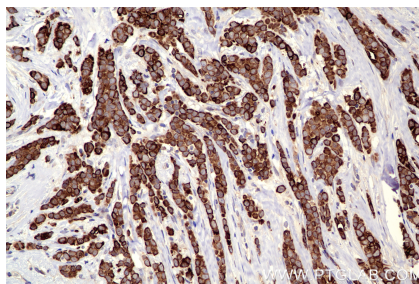
Immunofluorescent analysis of (4% PFA) fixed Jurkat cells using PLCG1 antibody (84941-1-RR, Clone: 242529A11) at dilution of 1:250 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Immunofluorescent analysis of (-20°C Ethanol) fixed HEK-293 cells using PLCG1 antibody (84941-1-RR, Clone: 242529A11) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 84941-1-RR (PLCG1 antibody) at dilution of 1:500 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 84941-1-RR (PLCG1 antibody) at dilution of 1:500 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).