Datasheet for ABIN967699

anti-Phospholipase C gamma 1 antibody (AA 82-100)

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Overview

Quantity:	150 µg
Target:	Phospholipase C gamma 1 (PLCG1)
Binding Specificity:	AA 82-100
Reactivity:	Human, Mouse, Rat, Dog, Chicken
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Phospholipase C gamma 1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Cow PLCgamma1 aa. 82-100
Clone:	10-PLCgamma
Isotype:	IgG1
Cross-Reactivity:	Human, Mouse (Murine), Rat (Rattus), Dog (Canine), Chicken
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Phospholipase C gamma 1 (PLCG1)
Alternative Name:	Phospholipase C gamma 1 (PLCG1 Products)
Background:	The Phospholipase C (PLC) isozymes hydrolyze phosphatidyl inositol biphosphate to inositol triphosphate and diacylglycerol. The former causes release of calcium from the endoplasmic reticulum, while the latter is an activator of Protein Kinase C. Within the PLC family, PLCg is the only member that contains SH2 and SH3 domains. These domains enable it to interact with receptor tyrosine kinases and become enzymatically activated via phosphorylation. It exists as two isoforms: 1) PLCg1, which is ubiquitously expressed, and 2) PLCg2, found primarily in the lymphoid system. PLCg is essential for growth factor-induced cell motility and mitogenesis. PLCg1 null mice exhibit retarded embryonic growth and lethality in midgestation. Overexpression of PLCg is evident in several forms of cancer, and it has been identified as a key mediator of PDGF-dependent cellular transformation. Thus regulation of PLCg activity by growth factors is involved in cell growth and transformation. The 10/PLCgamma monoclonal antibody recognizes PLCg1, regardless of phosphorylation status. It does not cross-react with PLCg2.
Molecular Weight:	148 kDa
Pathways:	RTK Signaling, WNT Signaling, TCR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Thyroid Hormone Synthesis, Inositol Metabolic Process, Myometrial Relaxation and Contraction, Regulation of Muscle Cell Differentiation, Regulation of G-Protein Coupled Receptor Protein Signaling, Skeletal Muscle Fiber Development, G-protein mediated Events, Signaling Events mediated by VEGFR1 and VEGFR2, Interaction of EGFR with phospholipase C-gamma, VEGFR1 Specific Signals, VEGF Signaling

Application Details

Comment:	Related Products: ABIN968533, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

Vossmeyer, Hofmann, Löster, Reutter, Danker: "Phospholipase Cgamma binds alpha1beta1 integrin and modulates alpha1beta1 integrin-specific adhesion." in: **The Journal of biological chemistry**, Vol. 277, Issue 7, pp. 4636-43, (2002) (PubMed).

Dayanir, Meyer, Lashkari, Rahimi: "Identification of tyrosine residues in vascular endothelial growth factor receptor-2/FLK-1 involved in activation of phosphatidylinositol 3-kinase and cell proliferation." in: **The Journal of biological chemistry**, Vol. 276, Issue 21, pp. 17686-92, (2001) (PubMed).

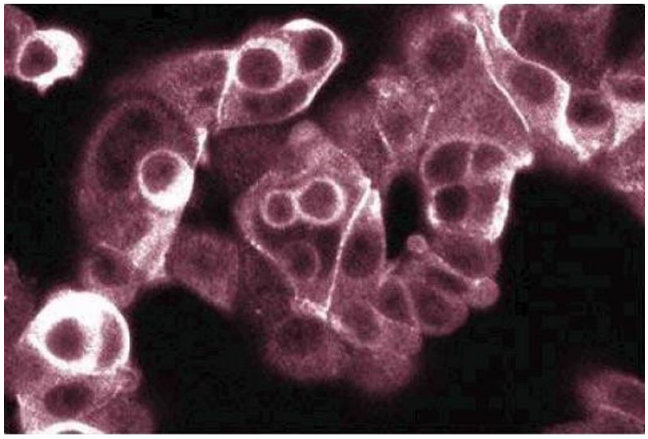
Harder, Kuhn: "Selective accumulation of raft-associated membrane protein LAT in T cell receptor signaling assemblies." in: **The Journal of cell biology**, Vol. 151, Issue 2, pp. 199-208, (2000) (PubMed).

Chen, Murphy-Ullrich, Wells: "A role for gelsolin in actuating epidermal growth factor receptor-mediated cell motility." in: **The Journal of cell biology**, Vol. 134, Issue 3, pp. 689-98, (1996) (PubMed).

Obermeier, Tinhofer, Grunicke, Ullrich: "Transforming potentials of epidermal growth factor and nerve growth factor receptors inversely correlate with their phospholipase C gamma affinity and signal activation." in: **The EMBO journal**, Vol. 15, Issue 1, pp. 73-82, (1996) (PubMed).

Western Blotting

Image 1. Western blot analysis of Phospholipase Cgamma1 on a A431 cell lysate (Human epithelial carcinoma, ATCC CRL-1555). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-Phospholipase Cgamma1 antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of MCF7 cells (Human breast adenocarcinoma, ATCC HTB-22).

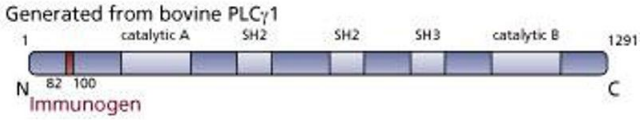


Image 3.

Please check the product details page for more images. Overall 4 images are available for ABIN967699.