abcam

Product datasheet

Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y775) antibody ab41434

1 Image

Overview

Product name Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y775) antibody

DescriptionRabbit polyclonal to Phospholipase C gamma 1/PLC-gamma-1 (phospho Y775)

Host species Rabbit

Specificity Phospho-Tyr775-\Phospholipase C gamma 1/PLC-gamma-1 specific. Immunogen sequence has

low homology to Phospholipase C gamma 2.

Tested applications Suitable for: WB

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

Immunogen Synthetic peptide corresponding to Human Phospholipase C gamma 1/PLC-gamma-1 (phospho

Y775).

Database link: P19174

Positive control Human Jurkat and A431 cells treated with pervanadate.

General notesThe Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at 4°C (up to 6 months). Store at -20°C.

Storage buffer Preservative: 0.05% Sodium azide

Constituents: PBS, 50% Glycerol, 0.1% BSA

Purity Immunogen affinity purified

Purification notes This antibody was cross-adsorbed to a non-specific phospho-tyrosine peptide, then affinity

purified using phospho-Phospholipase C gamma 1/PLC-gamma-1 (Tyr775) peptide.

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab41434 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 150 kDa (predicted molecular weight: 150 kDa).

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Function Plays a role in actin reorganization and cell migration. The production of the second messenger

molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) is mediated by activated phosphatidylinositol-specific phospholipase C enzymes. Major substrate for heparin-binding

growth factor 1 (acidic fibroblast growth factor)-activated tyrosine kinase.

Sequence similarities Contains 1 C2 domain.

Contains 1 EF-hand domain. Contains 2 PH domains.

Contains 1 PI-PLC X-box domain. Contains 1 PI-PLC Y-box domain.

Contains 2 SH2 domains. Contains 1 SH3 domain.

Domain The SH3 domain mediates interaction with CLNK (By similarity). The SH3 domain also mediates

interaction with RALGPS1.

Post-translational

modifications

The receptor-mediated activation of PLC-gamma-1 and PLC-gamma-2 involves their

phosphorylation by tyrosine kinases in response to ligation of a variety of growth factor receptors

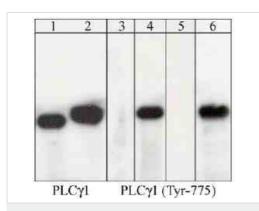
and immune system receptors. May be dephosphorylated by PTPRJ.

Ubiquitinated by CBLB in activated T-cells.

Cellular localization Cell projection > lamellipodium. Cell projection > ruffle. Rapidly redistributed to ruffles and

lamellipodia structures in response to epidermal growth factor (EGF) treatment.

Images



Western blot - Anti-Phospholipase C gamma 1/PLCgamma-1 (phospho Y775) antibody (ab41434)

Western blot analysis of Phospholipase C gamma 1/PLC-gamma-1 immunoprecipitates from human jurkat cells untreated (lanes 1 & 3) or treated with pervanadate (1 mM) for 30 min (lanes 2, 4, 5 & 6). Immunoprecipitation was performed with monoclonal anti-Phospholipase C gamma 1/PLC-gamma-1. The blots were probed with anti-Phospholipase C gamma 1/PLC-gamma-1 (lanes 1 & 2) and anti-Phospholipase C gamma 1/PLC-gamma-1 (Tyr-775) (lanes 3-6). The latter antibody was used in the presence of phospho-Phospholipase C gamma 1/PLC-gamma-1 (Tyr-775) peptide (lane 5), or a non-specific phosphotyrosine peptide (lane 6).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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