

## Product datasheet

# Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) antibody [EP1898Y] ab76031

Recombinant RabMAb

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### Overview

<b>Product name</b>	Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) antibody [EP1898Y]
<b>Description</b>	Rabbit monoclonal [EP1898Y] to Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783)
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF, Dot blot <b>Unsuitable for:</b> Flow Cyt, IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Jurkat cell lysates treated with pervanadate. ICC/IF: Jurkat cells treated with pervanadate.
<b>General notes</b>	<p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>The 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.</p> <p>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&amp;As</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP1898Y
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab76031 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
<b>WB</b>		1/100000 - 1/200000. Detects a band of approximately 149 kDa (predicted molecular weight: 149 kDa).
<b>ICC/IF</b>		1/100.
<b>Dot blot</b>		1/1000.

**Application notes** Is unsuitable for Flow Cyt, IHC-P or IP.

## Target

**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.

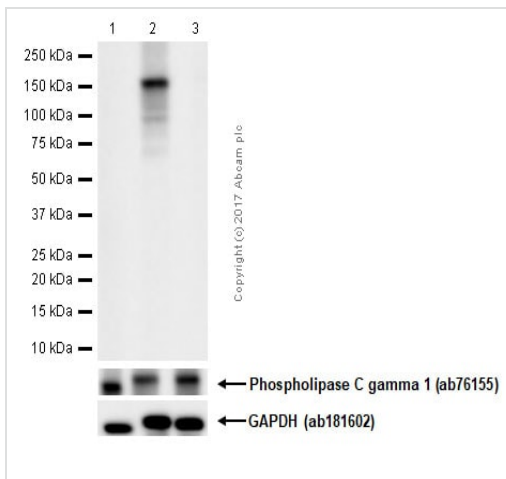
**Sequence similarities** Contains 1 C2 domain.  
Contains 1 EF-hand domain.  
Contains 2 PH domains.  
Contains 1 PI-PLC X-box domain.  
Contains 1 PI-PLC Y-box domain.  
Contains 2 SH2 domains.  
Contains 1 SH3 domain.

**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/PLC-gamma-1 (phospho Y783) antibody [EP1898Y] (ab76031)

**All lanes** : Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) antibody [EP1898Y] (ab76031) at 1/1000 dilution

**Lane 1** : Jurkat (human T cell leukemia T lymphocyte) whole cell lysate

**Lane 2** : Jurkat treated with 50mM pervanadate for 5 minutes whole cell lysate

**Lane 3** : Jurkat treated with 50mM pervanadate for 5 min whole cell lysate. Then the membrane was incubated with alkaline phosphatase

Lysates/proteins at 10 µg per lane.

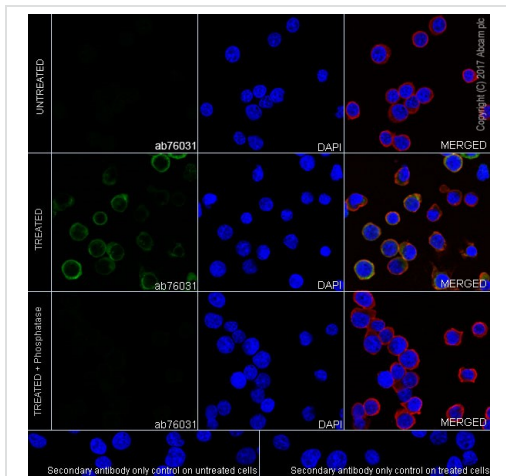
### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

**Predicted band size:** 149 kDa

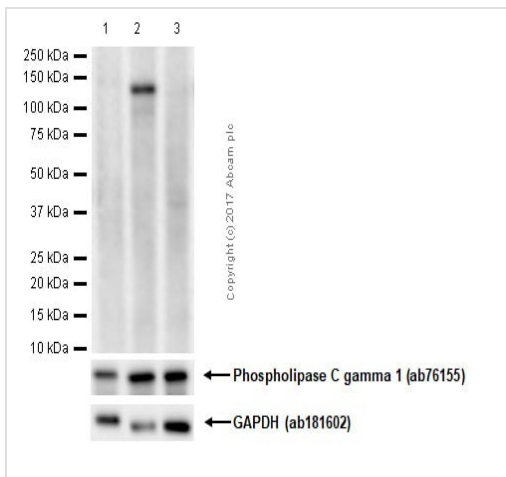
**Observed band size:** 149 kDa

Blocking and dilution buffer: 5% NFDm/TBST.



Immunocytochemistry/ Immunofluorescence - Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) antibody [EP1898Y] (ab76031)

Immunocytochemistry/Immunofluorescence analysis of Jurkat +/- pervanadate (1mM, 30min) and Jurkat + pervanadate (1mM, 30min) + LP labelling Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) with ab76031 at a dilution of 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% tritonX-100. **ab150077** (goat anti-rabbit IgG Alexa Fluor<sup>®</sup> 488) (1/1000) was used as the secondary antibody. The cells were co-stained with **ab195889** (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594)) at a 1/200 dilution. Nuclei counterstained with DAPI (blue). Control: PBS instead of the primary antibody.



Western blot - Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) antibody [EP1898Y] (ab76031)

**All lanes :** Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) antibody [EP1898Y] (ab76031) at 1/1000 dilution

**Lane 1 :** NIH/3T3 (mouse embryonic fibroblast), whole cell lysate

**Lane 2 :** NIH/3T3 treated with 50ng/ml PDGF-BB for 30 minutes whole cell lysate

**Lane 3 :** NIH/3T3 treated with 50ng/ml PDGF-BB for 30 minutes whole cell lysate. Then the membrane was incubated with alkaline phosphatase.

Lysates/proteins at 10 µg per lane.

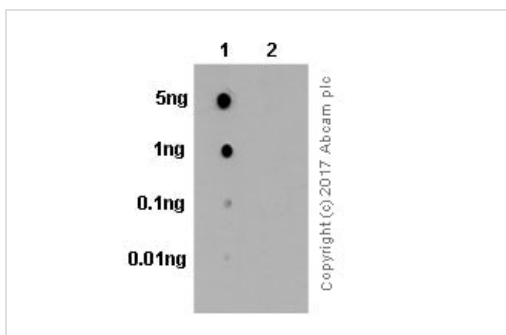
### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

**Predicted band size:** 149 kDa

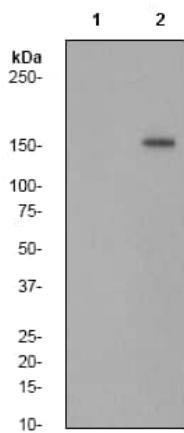
**Observed band size:** 149 kDa

Blocking and dilution buffer: 5% NFDM/TBST.



Dot Blot - Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) antibody [EP1898Y] (ab76031)

Dot blot analysis of Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) phospho peptide (Lane 1) and Phospholipase C gamma 1/PLC-gamma-1 non-phospho peptide (Lane 2) labelling Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) with ab76031 at a dilution of 1/1000. A Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) was used as the secondary antibody at a dilution of 1/20,000. Blocking buffer: 5% NFDM/TBST. Dilution buffer: 5% NFDM /TBST.



Western blot - Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) antibody [EP1898Y] (ab76031)

**All lanes** : Anti-Phospholipase C gamma 1/PLC-gamma-1 (phospho Y783) antibody [EP1898Y] (ab76031) at 1/200000 dilution

**Lane 1** : Jurkat cell lysates, untreated

**Lane 2** : Jurkat cell lysates, treated with pervanadate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes** : goat anti-rabbit HRP at 1/2000 dilution

**Predicted band size:** 149 kDa

**Observed band size:** 149 kDa

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

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