

Datasheet for ABIN968583

**anti-Phospholipase C beta 4 antibody (AA 752-961)**

4 Images

4 Publications

[Go to Product page](#)

## Overview

Quantity:	50 µg
Target:	Phospholipase C beta 4 (PLCb4)
Binding Specificity:	AA 752-961
Reactivity:	Human, Rat, Mouse, Blow Fly
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Phospholipase C beta 4 antibody is un-conjugated
Application:	Western Blotting (WB), BioImaging (BI), Immunofluorescence (IF)

## Product Details

Immunogen:	Human Phospholipase Cbeta4 aa. 752-961
Clone:	56-Phospholipase Cbeta4
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus), Mouse (Murine), Fruit Fly (Drosophila melanogaster)
Characteristics:	<ol style="list-style-type: none"><li>1. Please refer to us for technical protocols.</li><li>2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li><li>3. Alexa Fluor is a registered trademark of Molecular Probes, Inc., Eugene, OR.</li><li>4. 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.</li><li>5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.</li></ol>

## Product Details

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

## Target Details

Target:	Phospholipase C beta 4 (PLCb4)
Alternative Name:	Phospholipase C beta 4 ( <a href="#">PLCb4 Products</a> )
Background:	<p>Phospholipase C (PLC) hydrolyzes inositol phospholipids into diacylglycerol and inositol 1,4,5-trisphosphate (IP3). Multiple distinct PLC isoenzymes have been identified and divided into three structural types: alpha, beta, and gamma. This classification is based primarily on the location of the conserved X and Y domains, whose structural integrity is essential for a functional catalytic core. The activation of PLCbeta isoenzymes is uniquely regulated by G protein subunits, while PLCgamma is activated following phosphorylation by protein tyrosine kinases. The beta subfamily of PLC consists of at least four members: beta1, beta2, beta3, and beta4. PLCbeta4 differs from the other members in that it is not activated by G protein betagamma subunits, it is not found in the liver or kidney, and it is inhibited by ribonucleotides. Various isoforms of PLbetaC4 result from alternative splicing or proteolytic cleavage. PLCbeta4 is expressed in retina and brain and knockout mice display ataxia and abnormalities in metabotropic glutamate receptor function in the cerebellum. Thus, PLCbeta4 is primarily found in neuronal tissues where it is thought to be important in neurotransmitter signaling pathways.</p> <p>Synonyms: PLCbeta4</p>
Molecular Weight:	130 kDa
Pathways:	<a href="#">WNT Signaling</a> , <a href="#">Thyroid Hormone Synthesis</a> , <a href="#">G-protein mediated Events</a>

## Application Details

Application Notes:	<p>Bioimaging:</p> <p>Methanol Procedure for a 96 well plate: Remove media from wells. Add 100 µl/well fresh 3.7% Formaldehyde in PBS. Incubate for 10 minutes at room temperature (RT). Flick out and add 100 µl/well 90% methanol. Incubate for 5 minutes at RT. Flick out and wash twice with PBS. Flick out PBS and add 100 µl/well blocking buffer (3% FBS in PBS). Incubate for 30 minutes at RT. Flick out and add diluted antibody (diluted in blocking buffer). Incubate for 1 hour at RT. Wash three times with PBS. Flick out PBS and add second step reagent. Incubate for 1 hour at RT. Wash three times with PBS.</p> <p>Triton-X 100 Procedure for a 96 well plate: Remove media from wells. Add 100 µl/well fresh</p>
--------------------	---

## Application Details

3.7% Formaldehyde in PBS. Incubate for 10 minutes at room temperature (RT). Flick out and add 100 µl/well 0.1% Triton-X 100. Incubate for 5 minutes at RT. Flick out and wash twice with PBS. Flick out PBS and add 100 µl/well blocking buffer (3% FBS in PBS). Incubate for 30 minutes at RT. Flick out and add diluted antibody (diluted in blocking buffer). Incubate for 1 hour at RT. Flick out and wash three times with PBS. Flick out and add second step reagent. Incubate for 1 hour at RT. Flick out and wash three times with PBS.

Comment: Related Products: 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

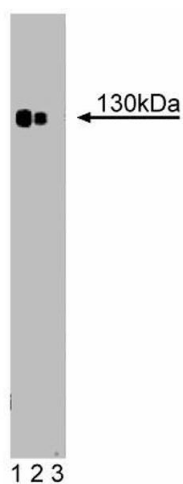
Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

Storage Comment: Store undiluted at -20°C.

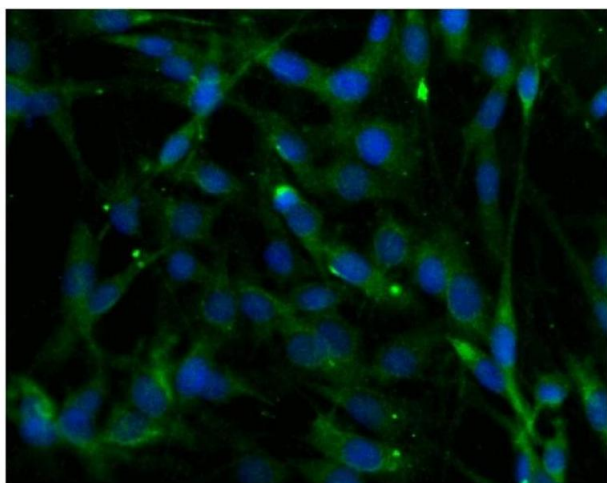
## Publications

Product cited in: Wang, Wu, Zhou, Guo, Zheng, Wang, Bi, Liu, Zhou, Guo, Sha: "Mapping of the N-linked glycoproteome of human spermatozoa." in: **Journal of proteome research**, Vol. 12, Issue 12, pp. 5750-9, (2013) ([PubMed](#)).



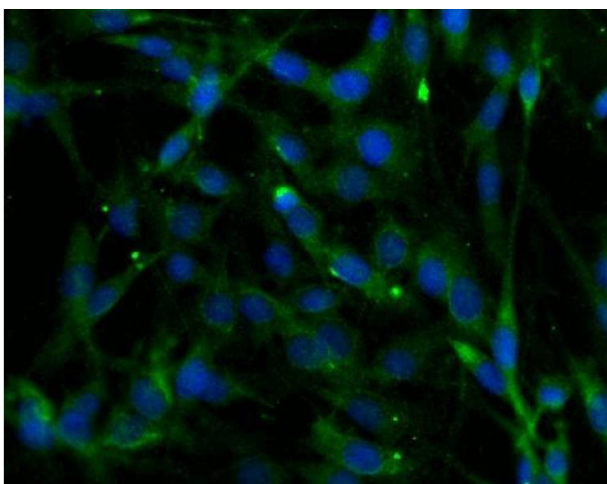
### Western Blotting

**Image 1.** Western blot analysis of Phospholipase Cbeta4 on a rat pituitary lysate (left). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-Phospholipase Cbeta4 antibody.



### Immunofluorescence

**Image 2.**



### Immunofluorescence

**Image 3.** Immunofluorescent staining of C6 cells (Rat glioma, ATCC CCL-107) (right). Cells were seeded in a 384-well collagen coated microplate at ~ 6,000 cells per well. After overnight incubation, cells were stained using the Triton-X 100 fix/perm protocol and the mouse anti-Phospholipase Cbeta4 antibody. The second step reagent was Alexa Fluor® 488 goat anti-mouse Ig (Invitrogen). The image was taken on a BD Pathway™ 855 or 435 Bioimager using a 20x objective. This antibody also stained SH-SY5Y (Human neuroblastoma, ATCC CRL-2266) and SK-N-SH cells (Human neuroblastoma, ATCC HTB-11) using both the Triton-X 100 and methanol fix/perm protocols.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN968583.