

## Product datasheet

# Anti-PKC zeta (phospho T560) antibody ab59412

[12 References](#) [5 Images](#)

### Overview

<b>Product name</b>	Anti-PKC zeta (phospho T560) antibody
<b>Description</b>	Rabbit polyclonal to PKC zeta (phospho T560)
<b>Host species</b>	Rabbit
<b>Specificity</b>	Detects endogenous levels of PKC? only when phosphorylated at threonine 560.
<b>Tested applications</b>	<b>Suitable for:</b> WB, ELISA, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human, African green monkey
<b>Immunogen</b>	Synthetic peptide corresponding to Human PKC zeta aa 500-600 (phospho T560). Database link: <a href="#">Q05513</a>
<b>Positive control</b>	WB: Extracts from COS7 cells treated with PMA (125ng/ml, 30mins). IHC-P: Human brain gliomas, human brain tissue.
<b>General notes</b>	<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>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Affinity-purified from rabbit antiserum by affinity chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
<b>Clonality</b>	Polyclonal

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab59412 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		1/500 - 1/1000. Detects a band of approximately 68 kDa (predicted molecular weight: 68 kDa).
ELISA		1/20000.
IHC-P		1/50 - 1/100.

## Target

### Function

This is a calcium-independent, phospholipid-dependent, serine- and threonine-specific enzyme. Phosphorylates 'Ser-311' of RELA subunit of NF-kappa-B. PKC is activated by diacylglycerol which in turn phosphorylates a range of cellular proteins. PKC also serves as the receptor for phorbol esters, a class of tumor promoters. Subunit of a quaternary complex that plays a central role in epithelial cell polarization.

### Tissue specificity

Expressed in brain, and to a lesser extent in lung, kidney and testis.

### Sequence similarities

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 OPR domain. Contains 1 phorbol-ester/DAG-type zinc finger. Contains 1 protein kinase domain.

### Domain

The OPR domain mediates mutually exclusive interactions with SQSTM1 and PARD6B. The C1 domain does not bind the diacylglycerol (DAG).

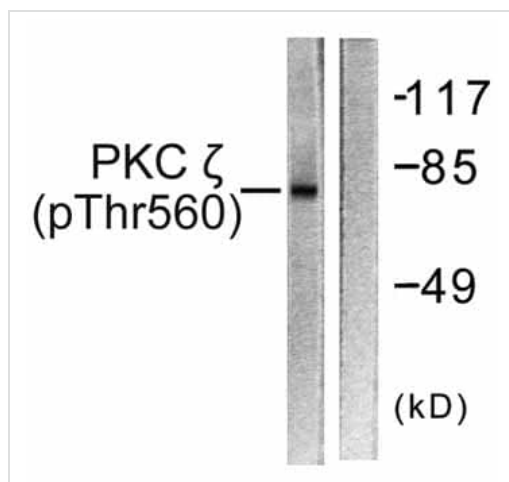
### Post-translational modifications

CDH5 is required for its phosphorylation at Thr-410.

### Cellular localization

Cytoplasm. Endosome. Cell junction. In the retina, localizes in the terminals of the rod bipolar cells (By similarity). Associates with endosomes. Presence of KRIT1, CDH5 and RAP1B is required for its localization to the cell junction.

## Images



Western blot - Anti-PKC zeta (phospho T560)  
antibody (ab59412)

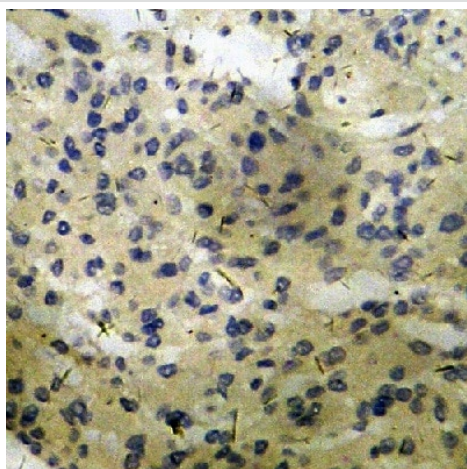
**All lanes :** Anti-PKC zeta (phospho T560) antibody (ab59412) at 1/500 dilution

**Lane 1 :** Extracts from COS7 cells treated with PMA (125ng/ml, 30mins)

**Lane 2 :** Extracts from COS7 cells treated with PMA (125ng/ml, 30mins) with phosphopeptide

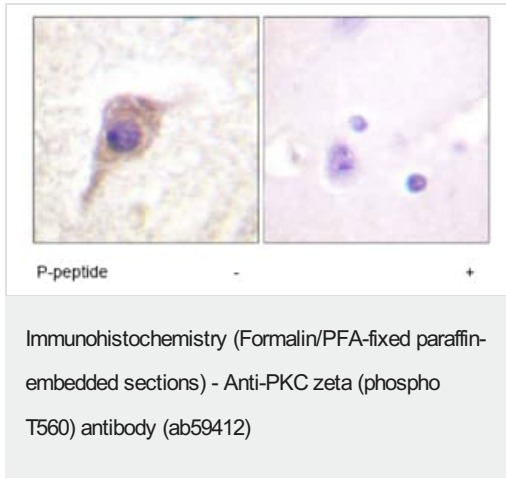
**Predicted band size:** 68 kDa

**Observed band size:** 68 kDa

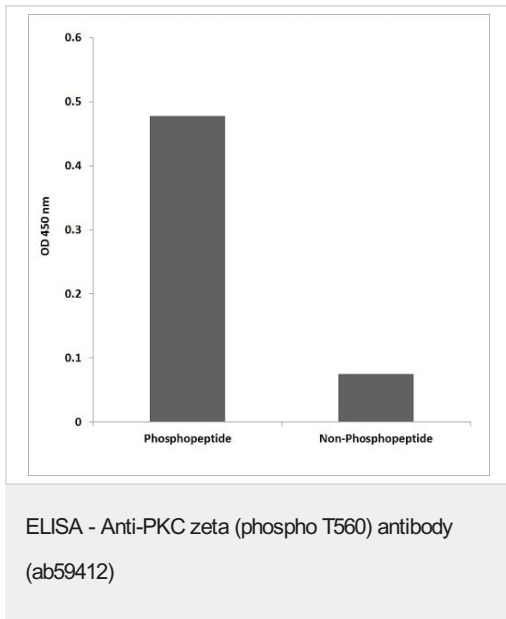


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKC zeta (phospho T560) antibody (ab59412)

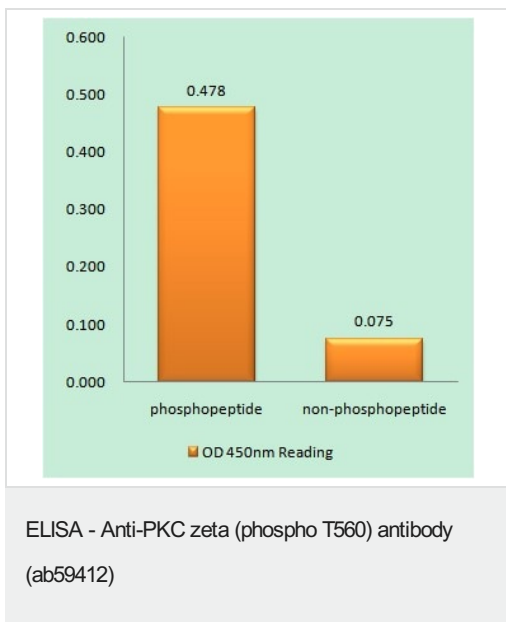
Immunohistochemical analysis of paraffin embedded human brain gliomas using ab59412 at 1/50 dilution



Immunohistochemical analysis of paraffin embedded human brain tissue using ab59412 at 1/50 dilution, in the presence (right) and absence (left) of immunising phosphopeptide.



ELISA showing that ab59412 (1:20000) detects endogenous levels of PKC zeta only when phosphorylated at Thr560.



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PKC zeta (Phospho-Thr560) Antibody, ab59412.

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

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