

## Product datasheet

# Anti-PKC zeta antibody [EP1490(2)] - BSA and Azide free ab225554

**KO VALIDATED** RabMAb

[2 Images](#)

### Overview

<b>Product name</b>	Anti-PKC zeta antibody [EP1490(2)] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EP1490(2)] to PKC zeta - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, Flow Cyt <b>Unsuitable for:</b> IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide corresponding to residues in Human PKC zeta (UniProt Q05513).
<b>Positive control</b>	293T, HT-29 and fetal liver lysates
<b>General notes</b>	ab225554 is the carrier-free version of <a href="#">ab108970</a> This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [carrier-free formats](#) are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.

Use our [conjugation kits](#) for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Ab225554 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.

*Maxpar® is a trademark of Fluidigm Canada Inc.*

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in

our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.20 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP1490(2)
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab225554** 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		Use at an assay dependent concentration. Predicted molecular weight: 74 kDa.
Flow Cyt		Use at an assay dependent concentration. <a href="#">ab199376</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

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

## Target

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**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).

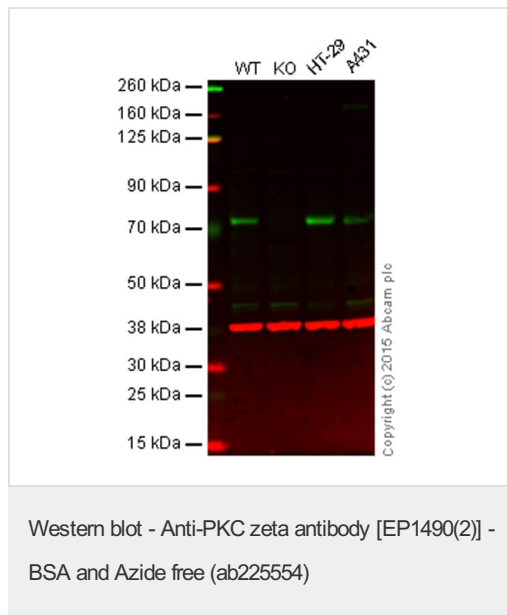
### Post-translational modifications

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.

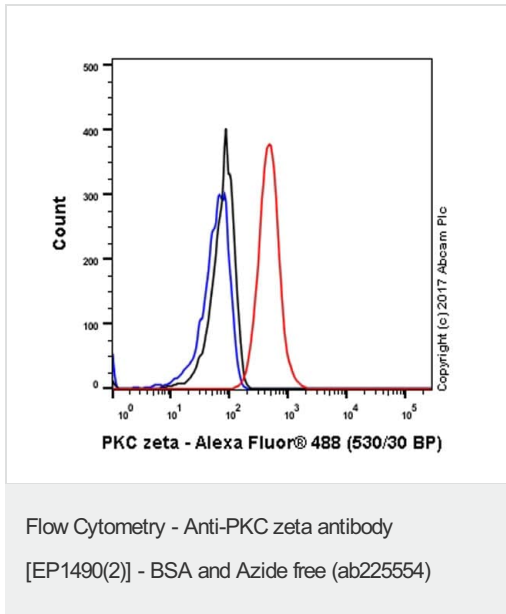
## Images



This WB data was generated using the same anti-PKC zeta antibody clone [EP1490(2)] in a different buffer formulation (cat# [ab108970](#)).

Lanes 1 - 3: Merged signal (red and green). Green - [ab108970](#) observed at 74 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using Licor blocking buffer before being incubated with [ab108970](#) and [ab8245](#) (loading control) overnight at 4°C. Antibody binding was detected using Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at a 1:10000 dilution for 1hr at room temperature and then imaged.



Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling PKC zeta with unpurified [ab108970](#) at 1/150 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti-rabbit IgG (Alexa Fluor® 488)(1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab108970](#)).

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

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