




Product datasheet

Anti-PKC theta/PRKCQ (phospho T538) antibody [F4H4L1] ab203565

Recombinant

5 Images

Overview

Product name	Anti-PKC theta/PRKCQ (phospho T538) antibody [F4H4L1]
Description	Rabbit monoclonal [F4H4L1] to PKC theta/PRKCQ (phospho T538)
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, Flow Cyt, ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide corresponding to Human PKC theta/PRKCQ aa 531-539 (phospho T538). Sequence: LGDAKTNTF Database link: Q04759  Run BLAST with  Run BLAST with
Positive control	Jurkat cells and lysates stimulated with PMA; HeLa cells; Human breast carcinoma tissue.
General notes	This product was previously labelled as PKC theta

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

Form	Liquid
Storage instructions	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.
Storage buffer	Preservative: 0.09% Sodium azide Constituent: 99% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	F4H4L1
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab203565** 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 a concentration of 2 - 4 µg/ml. Predicted molecular weight: 82 kDa.
IHC-P		Use a concentration of 4 - 6 µg/ml.
Flow Cyt		Use a concentration of 8 - 12 µg/ml. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		Use at an assay dependent concentration. 0.1 - 0.5 µg/test.

Target

Function

This is a calcium-independent, phospholipid-dependent, serine- and threonine-specific enzyme. Essential for T-cell receptor (TCR)-mediated T-cell activation, but is dispensable during TCR-dependent thymocyte development. Links the TCR signaling complex to the activation of NF-kappa-B in mature T lymphocytes. Required for interleukin-2 (IL2) production. 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.

Tissue specificity

Skeletal muscle, megakaryoblastic cells and platelets.

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 C2 domain.
Contains 2 phorbol-ester/DAG-type zinc fingers.
Contains 1 protein kinase domain.

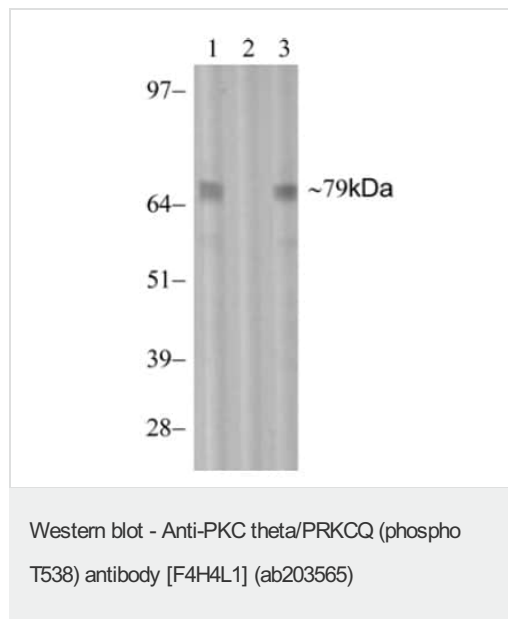
Domain

The C1 domain, containing the phorbol ester/DAG-type region 1 (C1A) and 2 (C1B), is the diacylglycerol sensor and the C2 domain is a non-calcium binding domain.

Post-translational modifications

Autophosphorylation at Thr-219 is required for targeting to the TCR and cellular function of PKC upon antigen receptor ligation.

Images



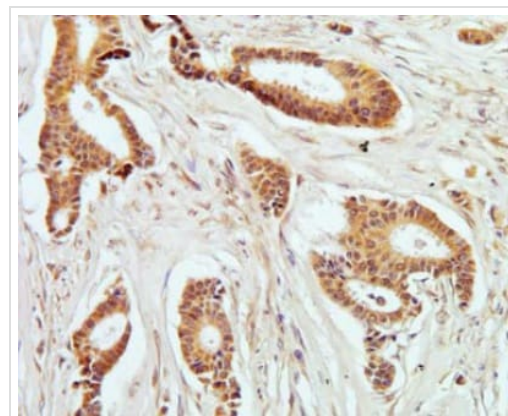
All lanes : Anti-PKC theta/PRKCQ (phospho T538) antibody [F4H4L1] (ab203565) at 3 μ g/ml

Lane 1 : Jurkat lysates stimulated with 100 ng/mL PMA for 1 hour

Lane 2 : Jurkat lysates stimulated with 100 ng/mL PMA for 1 hour with Immunogen phosphopeptide

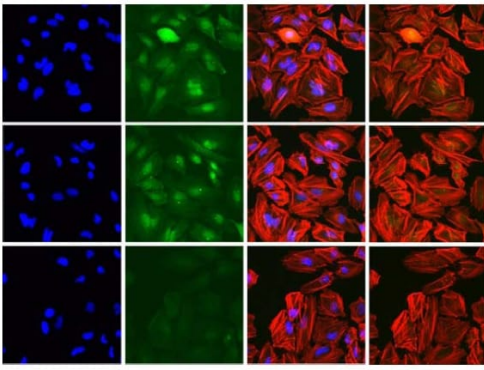
Lane 3 : Jurkat lysates stimulated with 100 ng/mL PMA for 1 hour with Non-phosphopeptide

Predicted band size: 82 kDa



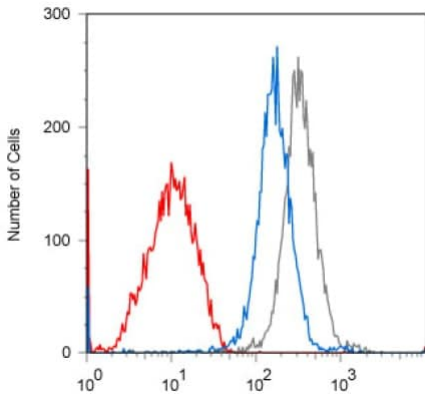
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human breast carcinoma tissue labeling PKC theta/PRKCQ (phospho T538) with ab203565 at 5 μ g/mL followed by DAB staining. Magnification: 20x.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKC theta/PRKCQ (phospho T538) antibody [F4H4L1] (ab203565)



Immunocytochemistry/ Immunofluorescence - Anti-
PKC theta/PRKCQ (phospho T538) antibody
[F4H4L1] (ab203565)

Immunofluorescence analysis of HeLa cells labeling PKC theta/PRKCQ (phospho T538) with [ab503565](#) at 10 µg/mL in the absence of peptides (top panels), presence of phosphopeptide used as immunogen (bottom panels) or non-phosphopeptide (middle panels). Alexa Fluor® 488 goat anti-rabbit used at 1/1000 was used as secondary antibody. Actin was stained with Alexa Fluor® 568 Phalloidin. Hoechst only (left), PKC-θ [pT538] (AF488) signal only (left center), composite image with Phalloidin (right center), and composite image without Hoechst (right).



Flow Cytometry - Anti-PKC theta/PRKCQ (phospho
T538) antibody [F4H4L1] (ab203565)

Flow cytometric analysis of Jurkat cells (incubated with 100 µM PMA for 1 hour prior to being fixed and permeabilized) labeling PKC theta/PRKCQ (phospho T538 with ab203565 at 0.1 µg followed by Alexa Fluor® 488 goat anti-rabbit IgG (grey). Pre-incubation with the immunogenic phosphopeptide decreased the signal (red), whereas incubation with the non-phosphopeptide did not (blue).

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-PKC theta/PRKCQ (phospho T538) antibody
[F4H4L1] (ab203565)

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

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