abcam

Product datasheet

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

Recombinant

4 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
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide corresponding to Human PKC theta/PRKCQ aa 500-600 (phospho T538). Database link: **Q04759** Run BLAST with Run BLAST with
Positive control	Jurkat cells and lysates stimulated with PMA; HeLa cells; Human breast carcinoma tissue.

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

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab203565 in the following tested applications.

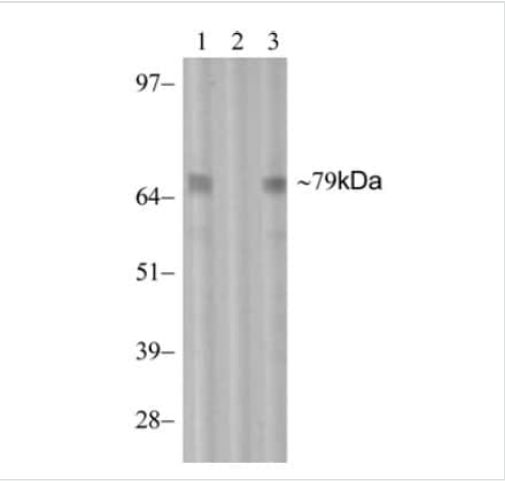
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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.

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

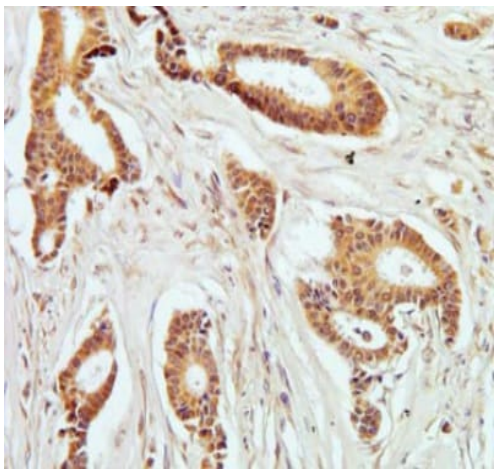


Western blot - Anti-PKC theta/PRKCQ (phospho T538) antibody [F4H4L1] (ab203565)

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

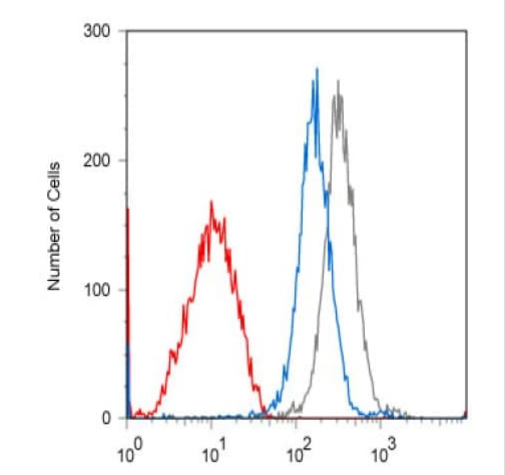
Lane 1 : Jurkat lysates stimulated with 100 ng/mL PMA for 1 hour
Lane 2 : Jurkat lysates stimulated with 100 ng/mL PMA for 1 hour with Immunogen phosphopeptide
Lane 3 : Jurkat lysates stimulated with 100 ng/mL PMA for 1 hour with Non-phosphopeptide

Predicted band size: 82 kDa



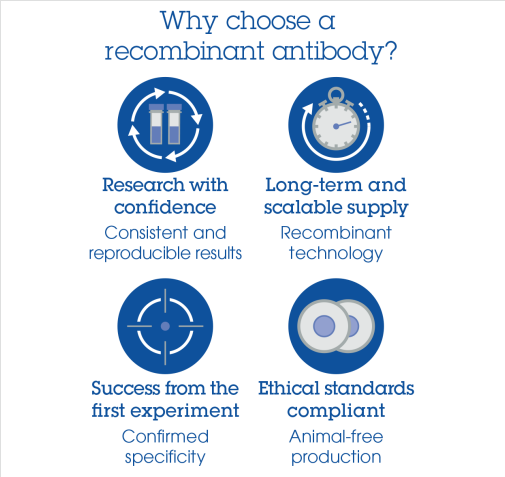
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKC theta/PRKCQ (phospho T538) antibody [F4H4L1] (ab203565)

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



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).



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

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