

Product datasheet

Anti-PKC theta/PRKCQ antibody [EPR22277] - BSA and Azide free ab243851

Recombinant RabMAb

5 Images

Overview

Product name	Anti-PKC theta/PRKCQ antibody [EPR22277] - BSA and Azide free
Description	Rabbit monoclonal [EPR22277] to PKC theta/PRKCQ - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, IP Unsuitable for: Flow Cyt or ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human tonsil tissue. Human gastrointestinal stromal tumor (GIST). IP: PKC theta/PRKCQ IP in K562 whole cell lysate.
General notes	<p>ab243851 is the carrier-free version of ab230971.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>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.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR22277
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab243851 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: 82 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		Use at an assay dependent concentration.

Application notes Is unsuitable for Flow Cyt or ICC/IF.

Target

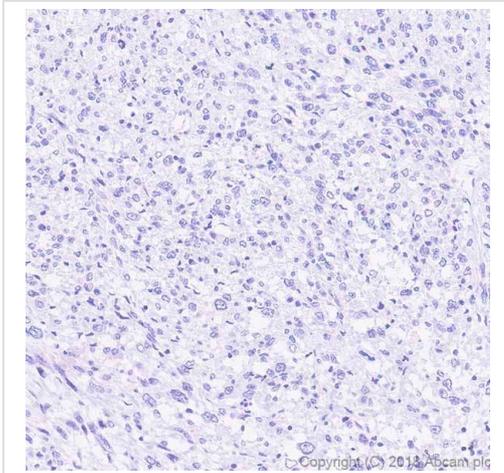
Function	This is a calcium-independent, phospholipid-dependent, serine- and threonine-specific enzyme. Essential for T-cell receptor (TCR)-mediated T-cell activation, but is dispensable during TCR-dependent thymocyte development. Links the TCR signaling complex to the activation of NF-kappa-B in mature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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKC theta/PRKCQ antibody [EPR22277] - BSA and Azide free (ab243851)

Immunohistochemical analysis of paraffin-embedded human leiomyosarcoma tissue labeling PKC theta/PRKCQ with [ab230971](#) at 1/1000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP).

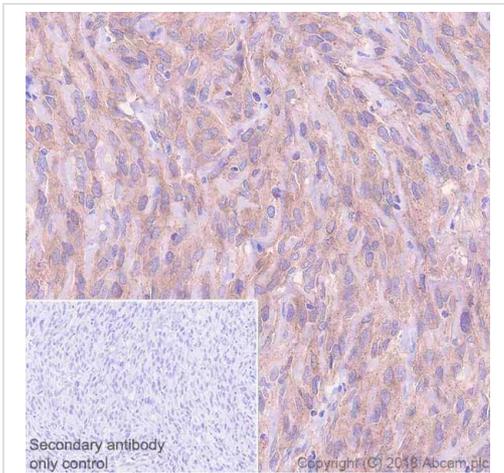
Negative control: No staining in human leiomyosarcoma (PMID: 15289315).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab230971](#)).

Counterstained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).



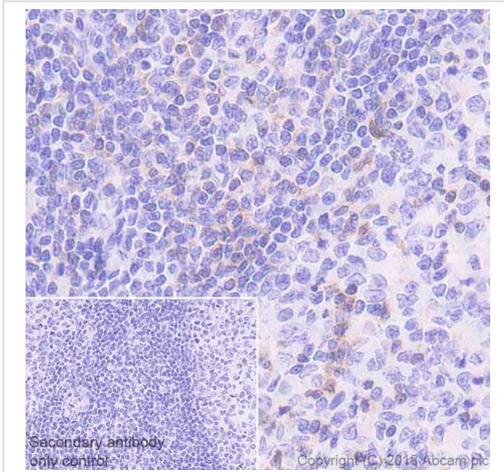
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKC theta/PRKCQ antibody [EPR22277] - BSA and Azide free (ab243851)

Immunohistochemical analysis of paraffin-embedded human gastrointestinal stromal tumor (GIST) tissue labeling PKC theta/PRKCQ with [ab230971](#) at 1/1000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining in human gastrointestinal stromal tumor (PMID: 15289315) is observed. Counterstained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

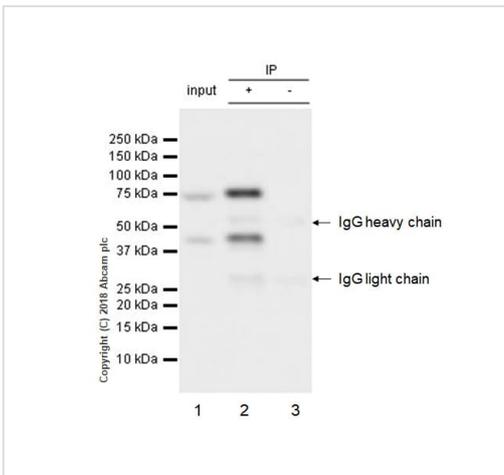
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab230971](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKC theta/PRKCQ antibody [EPR22277] - BSA and Azide free (ab243851)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling PKC theta/PRKCQ with **ab230971** at 1/1000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic and nuclear staining in T lymphocytes in tonsil (PMID: 27149922) is observed. Counterstained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab230971**).



Immunoprecipitation - Anti-PKC theta/PRKCQ antibody [EPR22277] - BSA and Azide free (ab243851)

PKC theta/PRKCQ was immunoprecipitated from 0.35 mg K562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate with **ab230971** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab230971** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/5000 dilution.

Lane 1: K562 whole cell lysate 10 µg (Input).

Lane 2: **ab230971** IP in K562 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab230971** in K562 whole cell lysate.

Blocking/Dilution buffer: 5% NFDN/TBST.

Exposure time: 3 seconds.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab230971**).

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 antibody [EPR22277] - BSA and Azide free (ab243851)

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors