

Product datasheet

Anti-PKC beta 1 + PKC beta 2 (phospho T641) antibody ab194749

[3 References](#) [3 Images](#)

Overview

Product name	Anti-PKC beta 1 + PKC beta 2 (phospho T641) antibody
Description	Rabbit polyclonal to PKC beta 1 + PKC beta 2 (phospho T641)
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IHC-P, WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human PKC beta 1 + PKC beta 2 (phospho T641). Residues surrounding threonine 641. Database link: P05771
Positive control	Extracts from jurkat cells treated with PMA, Human lung carcinoma tissue and MCF7 cells.
General notes	<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&As</p>

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	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 49% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab194749 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
ICC/IF		1/100 - 1/200.
IHC-P		1/50 - 1/100.
WB		1/500 - 1/2000. Predicted molecular weight: 77 kDa.

Target

Function

Calcium-activated and phospholipid-dependent serine/threonine-protein kinase involved in various processes such as regulation of the B-cell receptor (BCR) signalosome, apoptosis and transcription regulation. Plays a key role in B-cell activation and function by regulating BCR-induced NF-kappa-B activation and B-cell survival. Required for recruitment and activation of the IKK kinase to lipid rafts and mediates phosphorylation of CARD11/CARMA1 at 'Ser-559', 'Ser-644' and 'Ser-652', leading to activate the NF-kappa-B signaling. Involved in apoptosis following oxidative damage: in case of oxidative conditions, specifically phosphorylates 'Ser-36' of isoform p66Shc of SHC1, leading to mitochondrial accumulation of p66Shc, where p66Shc acts as a reactive oxygen species producer. Acts as a coactivator of androgen receptor (ANDR)-dependent transcription, by being recruited to ANDR target genes and specifically mediating phosphorylation of 'Thr-6' of histone H3 (H3T6ph), a specific tag for epigenetic transcriptional activation that prevents demethylation of histone H3 'Lys-4' (H3K4me) by LSD1/KDM1A. Also involved in triglyceride homeostasis. Serves as the receptor for phorbol esters, a class of tumor promoters.

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.

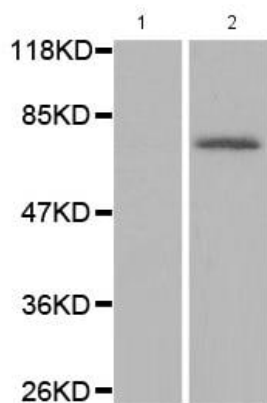
Post-translational modifications

Phosphorylation on Thr-500 within the activation loop renders it competent to autophosphorylate. Subsequent autophosphorylation of Thr-642 maintains catalytic competence, and autophosphorylation on Ser-661 appears to release the kinase into the cytosol. Autophosphorylation on other sites i.e. in the N-terminal and hinge regions have no effect on enzyme activity.

Cellular localization

Cytoplasm. Nucleus. Membrane.

Images



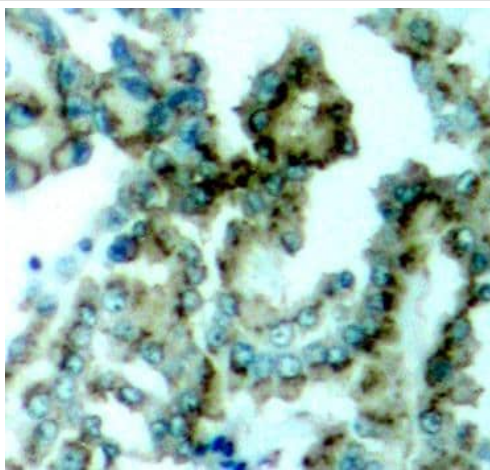
Western blot - Anti-PKC beta 1 + PKC beta 2 (phospho T641) antibody (ab194749)

All lanes : Anti-PKC beta 1 + PKC beta 2 (phospho T641) antibody (ab194749) at 1/500 dilution

Lane 1 : Extract from jurkat cells

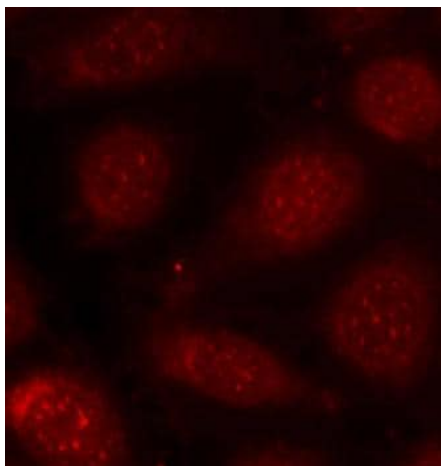
Lane 2 : Extract from jurkat cells treated with PMA

Predicted band size: 77 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKC beta 1 + PKC beta 2 (phospho T641) antibody (ab194749)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human lung carcinoma tissue labeling PKC beta 1 + PKC beta 2 (phospho T641) using ab194749 at a 1/50 dilution.



Immunofluorescence analysis of methanol-fixed MCF7 cells labeling PKC beta 1 + PKC beta 2 (phospho T641) using ab194749 at a 1/100 dilution.

Immunocytochemistry/ Immunofluorescence - Anti-PKC beta 1 + PKC beta 2 (phospho T641) antibody (ab194749)

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