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Datasheet for ABIN7127766

## Recombinant anti-PKC theta antibody

### 1 Image

#### Overview

Quantity:	100 µL
Target:	PKC theta (PRKCQ)
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This PKC theta antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

#### Product Details

Immunogen:	A synthesized peptide derived from human PKC theta
Clone:	1B2
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Purification:	Affinity-chromatography

#### Target Details

Target:	PKC theta (PRKCQ)
Alternative Name:	PRKCQ ( <a href="#">PRKCQ Products</a> )
Background:	Background: Calcium-independent, phospholipid- and diacylglycerol (DAG)-dependent

serine/threonine-protein kinase that mediates non-redundant functions in T-cell receptor (TCR) signaling, including T-cells activation, proliferation, differentiation and survival, by mediating activation of multiple transcription factors such as NF-kappa-B, JUN, NFATC1 and NFATC2. In TCR-CD3/CD28-co-stimulated T-cells, is required for the activation of NF-kappa-B and JUN, which in turn are essential for IL2 production, and participates in the calcium-dependent NFATC1 and NFATC2 transactivation. Mediates the activation of the canonical NF-kappa-B pathway (NFKB1) by direct phosphorylation of CARD11 on several serine residues, inducing CARD11 association with lipid rafts and recruitment of the BCL10-MALT1 complex, which then activates IKK complex, resulting in nuclear translocation and activation of NFKB1. May also play an indirect role in activation of the non-canonical NF-kappa-B (NFKB2) pathway. In the signaling pathway leading to JUN activation, acts by phosphorylating the mediator STK39/SPAK and may not act through MAP kinases signaling. Plays a critical role in TCR/CD28-induced NFATC1 and NFATC2 transactivation by participating in the regulation of reduced inositol 1,4,5-trisphosphate generation and intracellular calcium mobilization. After costimulation of T-cells through CD28 can phosphorylate CBLB and is required for the ubiquitination and subsequent degradation of CBLB, which is a prerequisite for the activation of TCR. During T-cells differentiation, plays an important role in the development of T-helper 2 (Th2) cells following immune and inflammatory responses, and, in the development of inflammatory autoimmune diseases, is necessary for the activation of IL17-producing Th17 cells. May play a minor role in Th1 response. Upon TCR stimulation, mediates T-cell protective survival signal by phosphorylating BAD, thus protecting T-cells from BAD-induced apoptosis, and by up-regulating BCL-X(L)/BCL2L1 levels through NF-kappa-B and JUN pathways. In platelets, regulates signal transduction downstream of the ITGA2B, CD36/GP4, F2R/PAR1 and F2RL3/PAR4 receptors, playing a positive role in 'outside-in' signaling and granule secretion signal transduction. May relay signals from the activated ITGA2B receptor by regulating the uncoupling of WASP and WIPF1, thereby permitting the regulation of actin filament nucleation and branching activity of the Arp2/3 complex. May mediate inhibitory effects of free fatty acids on insulin signaling by phosphorylating IRS1, which in turn blocks IRS1 tyrosine phosphorylation and downstream activation of the PI3K/AKT pathway. Phosphorylates MSN (moesin) in the presence of phosphatidylglycerol or phosphatidylinositol. Phosphorylates PDKP1 at 'Ser-504' and 'Ser-532' and negatively regulates its ability to phosphorylate PKB/AKT1.

Aliases: Protein kinase C theta type (EC 2.7.11.13) (nPKC-theta), PRKCQ, PRKCT

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UniProt: [Q04759](#)

Pathways: [TCR Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [Myometrial Relaxation and Contraction](#),

## Target Details

Regulation of G-Protein Coupled Receptor Protein Signaling, Thromboxane A2 Receptor Signaling

## Application Details

Application Notes: Recommended dilution: WB:1:500-1:5000,

Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: Rabbit IgG in phosphate buffered saline, pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.

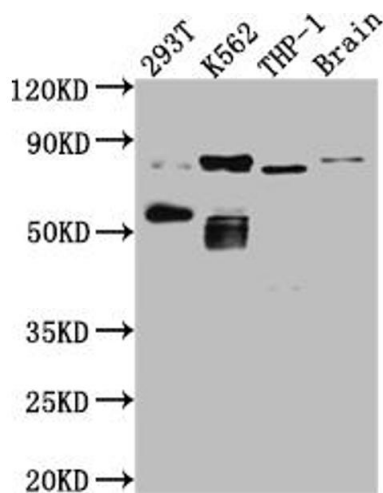
Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C,-80 °C

Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

## Images



### Western Blotting

**Image 1.** Western Blot Positive WB detected in: 293T whole cell lysate, K562 whole cell lysate, THP-1 whole cell lysate, Mouse Brain whole cell lysate All lanes: PKC antibody at 1:1000 Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 82, 75, 68 kDa Observed band size: 82, 55 kDa