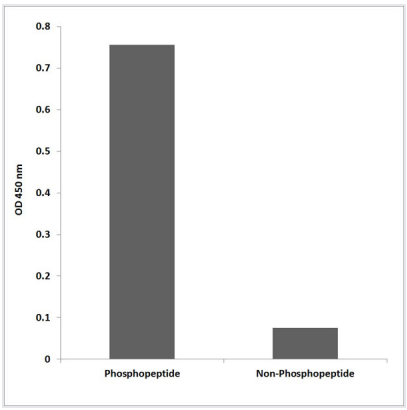
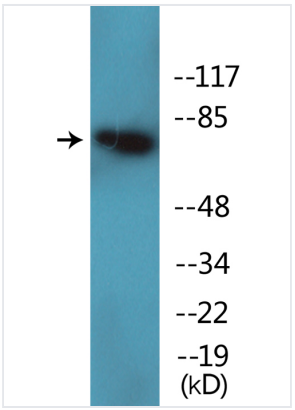
PKC theta Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PKC theta, Polyclonal Antibody
Full Product Name	PKC theta (Phospho-Ser695) Antibody
Product Gene Name	anti-PKC theta antibody
Product Synonym Gene Name	PRKCQ
Product Synonym Names	KPCT; PKC-theta; PKCQ; PRKCQ; PRKCT; Protein kinase C; theta type; kinase PKC-theta; nPKC-theta
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Rabbit IgG in phosphate buffered saline (Phospho-without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Purified from rabbit antiserum by affinity-chromatography using phospho peptide. The antibody against non-phospho peptide was removed by chromatography using corresponding non-phospho peptide.
Concentration	1 mg/ml (lot specific)
Specificity	PKC theta (Phospho-Ser695) Antibody detects endogenous levels of PRKCQ only when phosphorylated at Ser695.
Preparation and Storage	Stable at -20 degree C for at least 1 year.
Molecular Weight	81 kDa
OMIM	L01087 mRNA
3D Structure	ModBase 3D Structure for Q04759
Target Modification	Phospho
Modification Sites	H:S695
Immunogen	The antiserum was produced against synthesized phospho-peptide derived from human PKC theta around the phosphorylation site of Ser695.
Applications Tested/Suitable for anti-PKC theta antibody	Western Blot (WB), Immunohistochemistry (IHC), ELISA (EIA)
Application Notes for anti-PKC theta antibody	WB: 1:500~1:1000 IHC: 1:50~1:100 ELISA: 1:10000
Related Product Information for anti-PKC theta antibody	MBS9508657 is an antibody targeting PKC theta. Also known as PKC theta (Phospho-Ser695) Antibody. Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-PKC theta antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



ELISA (EIA) of anti-PKC theta antibody
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PKC theta (Phospho-Ser695) Antibody



Western Blot (WB) of anti-PKC theta antibody
Western blot analysis of lysates from Jurkat cells treated with EGF 200ng/ml 15', using PKC theta (Phospho-Ser695) Antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PKC theta. It may not necessarily be applicable to this product.

NCBI GI #	334848126
NCBI GeneID	5588
NCBI Accession #	NP_001229342.1
UniProt Primary Accession #	Q04759
UniProt Secondary Accession #	Q14DH6; Q3MJF1; Q64FY5; Q9H508; Q9H549; B4DF52
UniProt Related Accession #	Q04759
GenBank Nucleotide #	NM_001242413.2
NCBI Official Full Name	protein kinase C theta type isoform 2
NCBI Official Synonym Full Names	protein kinase C theta
NCBI Official Symbol	PRKCQ
NCBI Official Synonym Symbols	PRKCT; nPKC-theta
UniProt Protein Name	Protein kinase C theta type
UniProt Synonym Protein Names	nPKC-theta
UniProt Gene Name	PRKCQ
UniProt Synonym Gene Names	PRKCT
NCBI Protein Information	protein kinase C theta type
NCBI Summary for PKC theta	Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family members also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play a distinct role. The protein encoded by this gene is one of the PKC family members. It is a calcium-independent and phospholipid-dependent protein kinase. This kinase is important for T-cell activation. It is required for the activation of the transcription factors NF-kappaB and AP-1, and may link the T cell receptor (TCR) signaling complex to the activation of the transcription factors. [provided by RefSeq, Jul 2008]

UniProt Comments for PKC theta	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 PDPK1 at 'Ser-504' and 'Ser-532' and negatively regulates its ability to phosphorylate PKB/AKT1.
Research Articles on PKC theta	**1.** PCR and transcriptome analysis suggest that the genes CD3D and PKRCQ together can be used as a model for differentiating between B-cell and T-cell acute lymphoblastic leukemia.
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