

Rabbit PKC theta Polyclonal Antibody | anti-PRKCQ antibody

PKC theta Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322380	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

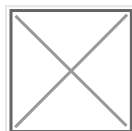
PRODUCT SYNONYMS

PKC theta; Polyclonal Antibody; PKC theta Antibody; nPKC-theta; PRKCT; Protein kinase C theta; Protein kinase C theta type; anti-PRKCQ antibody

PRODUCT SPECIFICATIONS

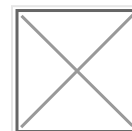
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PKC theta antibody detects endogenous levels of total PKC theta
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	643
Applicable Applications for anti-PRKCQ antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PKC theta
Subcellular Location	Cell Membrane and Cytoplasmic
Tissue Specificity	Expressed in skeletal muscle, T-cells, megakaryoblastic cells and platelets.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog
Similarity	Pig (100%), Zebrafish (82%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of PKC theta expression in PMA treated Jurkat whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA322380 staining Hela cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-PRKCQ antibody	Description: 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. Function: 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. Subunit Structure: Interacts with GLRX3 (via N-terminus). Interacts with ECT2. Part of a lipid raft complex composed at least of BCL10, CARD11, MALT1 and IKBKB. Post-translational Modifications: Autophosphorylation at Thr-219 is required for targeting to the TCR and cellular function of PRKCQ upon antigen receptor ligation. Following TCR stimulation, phosphorylated at Tyr-90 and Ser-685. Similarity: 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. Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	334848126
NCBI GeneID	5588
NCBI Accession #	NP_001229342.1
NCBI GenBank Nucleotide #	NM_001242413.2
UniProt Accession #	Q04759; Q14DH6; Q3MJF1; Q64FY5; Q9H508; Q9H549; B4DF52
Molecular Weight	Observed: 80 kDa Predicted: 82 kDa
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

NCBI Protein Information	protein kinase C theta type
UniProt Protein Name	Protein kinase C theta type
UniProt Gene Name	PRKCQ
UniProt Synonym Gene Names	PRKCT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pkc-theta-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/322380>