

Product Name: PKC θ Rabbit Polyclonal Antibody
Catalog #: APRab16206



Summary

Production Name	PKC θ Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PRKCQ
Alternative Names	PRKCQ; PRKCT; Protein kinase C theta type; nPKC-theta
Gene ID	5588.0
SwissProt ID	Q04759. The antiserum was produced against synthesized peptide derived from human PKC thet. AA range:643-692

Application

Dilution Ratio	WB 1:500-1:2000, IHC-P 1:100-1:300, IF-P/IF-F/ICC/IF 1:200-1:1000, ELISA 1:20000. Not yet tested in other applications.
Molecular Weight	82kDa

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Background

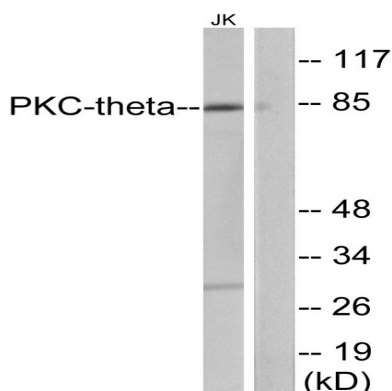
Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family 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],catalytic activity:ATP + a protein = ADP + a

phosphoprotein.,cofactor:Magnesium.,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.,enzyme regulation:Three specific sites; Thr-538 (activation loop of the kinase domain), Ser-676 (turn motif) and Ser-695 (hydrophobic region), need to be phosphorylated for its full activation.,function: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.,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.,PTM:Autophosphorylation at Thr-219 is required for targeting to the TCR and cellular function of PKC upon antigen receptor ligation.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily.,similarity:Contains 1 AGC-kinase C-terminal domain.,similarity:Contains 1 C2 domain.,similarity:Contains 1 protein kinase domain.,similarity:Contains 2 phorbol-ester/DAG-type zinc fingers.,subunit:Interacts with TXNL2/PICOT.,tissue specificity:Skeletal muscle, megakaryoblastic cells and platelets.,

Research Area

Regulation_Microtubule; Regulation of Actin Dynamics; Stem cell pathway; Insulin Receptor; NF_kappaB; B Cell Receptor; AMPK

Image Data



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Western blot analysis of lysates from Jurkat cells, treated with PMA 200nM 30', using PKC θ Antibody. The lane on the right is blocked with the synthesized peptide.

Note

For research use only.