

**Product Name: PKC  $\theta$  (phospho Ser676) Rabbit Polyclonal Antibody****Catalog #: APRab05266**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Phosphorylated
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:10000
<b>Molecular Weight</b>	82kDa

**Antigen Information**

<b>Gene Name</b>	PRKCQ
<b>Alternative Names</b>	PRKCQ; PRKCT; Protein kinase C theta type; nPKC-theta
<b>Gene ID</b>	5588.0
<b>SwissProt ID</b>	Q04759
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human PKC $\theta$ around the phosphorylation site of Ser676. AA range:643-692

**Background**

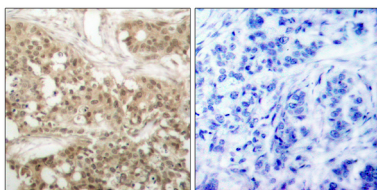
Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the

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.,

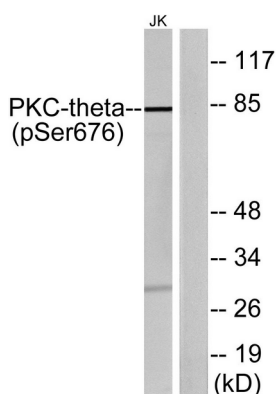
## Research Area

Regulation\_Microtubule; Regulation of Actin Dynamics; Stem cell pathway; Insulin Receptor; NF\_kappaB; B Cell Receptor; AMPK

## Image Data



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using PKC-theta (Phospho-Ser676) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from Jurkat cells treated with PMA 200nM 30', using PKC-theta (Phospho-Ser676) Antibody. The lane on the right is blocked with the phospho peptide.

