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**Product Name: PKC  $\delta$  (phospho Thr507) Rabbit Polyclonal Antibody****Catalog #: APRab05259**

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 1:50-1:200,ELISA 1:10000-1:20000
<b>Molecular Weight</b>	78kDa

**Antigen Information**

<b>Gene Name</b>	PRKCD
<b>Alternative Names</b>	PRKCD; Protein kinase C delta type; Tyrosine-protein kinase PRKCD; nPKC-delta
<b>Gene ID</b>	5580.0
<b>SwissProt ID</b>	Q05655
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human PKC delta around the phosphorylation site of Thr505. AA range:471-520

**Background**

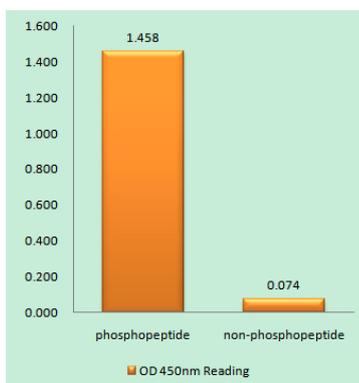
Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the

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 distinct roles in cells. The protein encoded by this gene is one of the PKC family members. Studies both in human and mice demonstrate that this kinase is involved in B cell signaling and in the regulation of growth, apoptosis, and differentiation of a variety of cell types. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq, Jul 2008], catalytic activity: ATP + a protein = ADP + a phosphoprotein., domain: The C1 domain, containing the phorbol ester/DAG-type region 1 (C1A) and 2 (C1B), is the diacylglycerol sensor., domain: The C2 domain is a non-calcium binding domain. It binds proteins containing phosphotyrosine in a sequence-specific manner., enzyme regulation: Three specific sites; Thr-507 (activation loop of the kinase domain), Ser-645 (turn motif) and Ser-664 (hydrophobic region), need to be phosphorylated for its full activation., function: This is calcium-independent, phospholipid-dependent, serine- and threonine-specific enzyme. 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. May play a role in antigen-dependent control of B-cell function. Phosphorylates MUC1 in the C-terminal and regulates the interaction between MUC1 and beta-catenin., PTM: Phosphorylated on Thr-507, within the activation loop. Autophosphorylated and/or phosphorylated. Although the Thr-507 phosphorylation occurs it is not a prerequisite for enzymatic activity., 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 PDK1, RAD9A, CDCP1 and MUC1.,

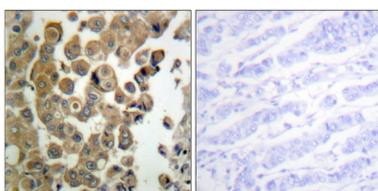
## Research Area

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

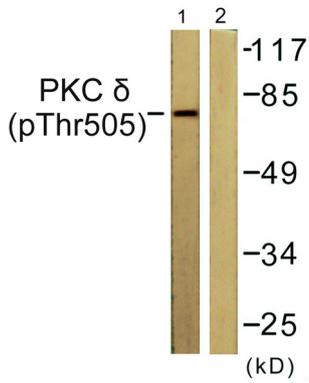
## Image Data



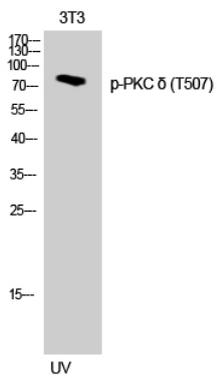
Enzyme-Linked Immunosorbent Assay ( Phospho-ELISA ) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using PKC delta (Phospho-Thr505) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using PKC delta (Phospho-Thr505) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from NIH/3T3 cells treated with UV 15', using PKC delta (Phospho-Thr505) Antibody. The lane on the right is blocked with the phospho peptide.



Western Blot analysis of 3T3 cells using Phospho-PKC  $\delta$  (T507) Polyclonal Antibody