

Immunotag™ PKC δ (phospho Ser645) Polyclonal Antibody

Antibody Specification	
Catalog No.	ITP0851
Product Description	Immunotag™ PKC δ (phospho Ser645) Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PKC δ (Ser645)
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Monkey
Host Species	Rabbit
Immunogen	The antiserum was produced against synthesized peptide derived from human PKC delta around the phosphorylation site of Ser645. AA range:612-661
Specificity	Phospho-PKC δ (S645) Polyclonal Antibody detects endogenous levels of PKC δ protein only when phosphorylated at S645.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	PRKCD
Accession No.	Q05655 P28867
Alternate Names	PRKCD; Protein kinase C delta type; Tyrosine-protein kinase PRKCD; nPKC-delta

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Description	protein kinase C delta(PRKCD) Homo sapiens 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],
Cell Pathway/ Category	Regulation_Microtubule, Regulation of Actin Dynamics, Stem cell pathway, Insulin Receptor, B Cell Receptor, AMPK
Protein Expression	Epithelium,Hippocampus,Liver,Platelet,Skin,
Subcellular Localization	intracellular,nucleus,nucleoplasm,cytoplasm,endoplasmic reticulum,cytosol,plasma membrane,cell-cell junction,membrane,nuclear matrix,perinuclear region of cytoplasm,extracellular exosome,
Protein Function	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.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.