Immunotag™ PKC ζ Polyclonal Antibody

Antibody Specification

Catalog No.	ITT3764
Product Description	Immunotag™ PKC ζ 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 ζ
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,IF,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from PKC ζ, at AA range: 350-430
Specificity	PKC ζ Polyclonal Antibody detects endogenous levels of PKC ζ protein.
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	PRKCZ
Accession No.	Q05513 Q02956 P09217
Alternate Names	PRKCZ; PKC2; Protein kinase C zeta type; nPKC-zeta

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Description	protein kinase C zeta(PRKCZ) Homo sapiens Protein kinase C (PKC) zeta is a member of the PKC family of serine/threonine kinases which are involved in a variety of cellular processes such as proliferation, differentiation and secretion. Unlike the classical PKC isoenzymes which are calcium-dependent, PKC zeta exhibits a kinase activity which is independent of calcium and diacylglycerol but not of phosphatidylserine. Furthermore, it is insensitive to typical PKC inhibitors and cannot be activated by phorbol ester. Unlike the classical PKC isoenzymes, it has only a single zinc finger module. These structural and biochemical properties indicate that the zeta subspecies is related to, but distinct from other isoenzymes of PKC. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008],
Cell Pathway/ Category	Regulation_Microtubule, Regulation of Actin Dynamics, Stem cell pathway, Insulin Receptor, PI3K/Akt, B Cell Receptor, AMPK
Protein Expression	Brain,Colon,Epithelium,Frontal cortex,Hippocampus,Neuroblastoma,Ovary,
Subcellular Localization	intracellular,nuclear envelope,cytoplasm,endosome,microtubule organizing center,cytosol,plasma membrane,cell-cell junction,bicellular tight junction,membrane,apical plasma membrane,nuclear matrix,cell junction,
Protein Function	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,domain:The C1 domain does not bind the diacylglycerol (DAG).,domain:The OPR domain mediates mutually exclusive interactions with SQSTM1 and PARD6B.,enzyme regulation:Phosphatidylinositol 3,4,5-trisphosphate might be a physiological activator. Two specific sites, Thr-410 (activation loop of the kinase domain) and Thr-560 (turn motif), 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. Subunit of a quaternary complex that plays a central role in epithelial cell polarization.,function:This is a calcium-independent, phospholipid-dependent, serine- and threonine-specific enzyme.,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 OPR domain.,similarity:Contains 1 phorbol-ester/DAG-type zinc finger.,similarity:Contains 1 protein kinase domain.,subcellular location:In the retina, localizes in the terminals of the rod bipolar cells (By similarity). Associates with endosomes.,subunit:Forms a ternary complex with SQSTM1 and KCNAB2. Forms another ternary complex with SQSTM1 and GABRR3. Forms a complex with SQSTM1 and MAP2K5 (By similarity). Interacts with PARD6A, PARD6B, PARD6G and SQSTM1. Part of a complex with PARD3, PARD6A or PARD6B or PARD6G and CDC42 or RAC1. Interacts with ADAP1/CENTA1. Forms a ternary complex composed of SQSTM1 and PAWR. Interacts directly with SQSTM1 (Probable). Interacts with IKBKB.,tissue specificity:Expressed in brain, and to a lesser extent in lung, kidney and testis.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.