Product Name: PKC ζ (phospho Thr560) Rabbit Polyclonal Antibody
Catalog #: APRab05265

Summary

Production Name	PKC ζ (phospho Thr560) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat,Monkey

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
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% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PRKCZ
Alternative Names	PRKCZ; PKC2; Protein kinase C zeta type; nPKC-zeta
Gene ID	5590.0
SwissProt ID	Q05513.The antiserum was produced against synthesized peptide derived from human PKC zeta around the phosphorylation site of Thr560. AA range:526-575

Application

Dilution Ratio	WB 1:500-1:2000, IHC-P 1:100-1:300, ELISA 1:20000, IF-P/IF-F/ICC/IF 1:50-200
Molecular Weight	80kDa

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Background

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],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.,

Research Area

Regulation_Microtubule; Regulation of Actin Dynamics; Stem cell pathway; Insulin Receptor; PI3K/Akt; B Cell Receptor; AMPK

Image Data

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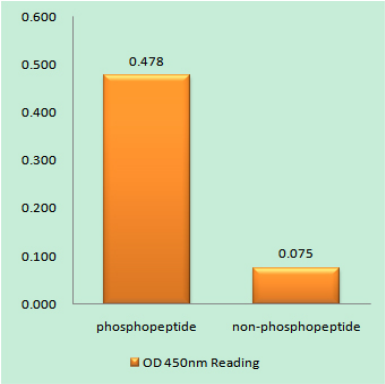
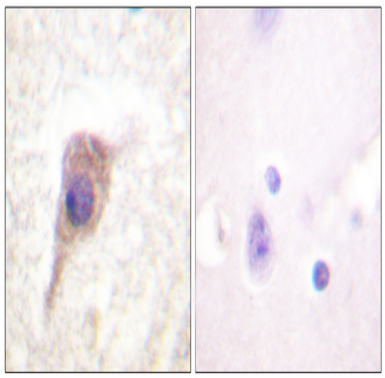
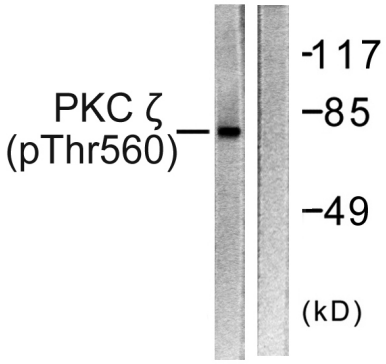


Enzyme-Linked Immunosorbent Assay （Phospho-ELISA） for Immunogen Phosphopeptide （Phospho-left） and Non-Phosphopeptide （Phospho-right）, using PKC zeta （Phospho-Thr560） Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using PKC zeta （Phospho-Thr560） Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from COS7 cells treated with PMA 125ng/ml 30 ', using PKC zeta （Phospho-Thr560） Antibody. The lane on the right is blocked with the phospho peptide.

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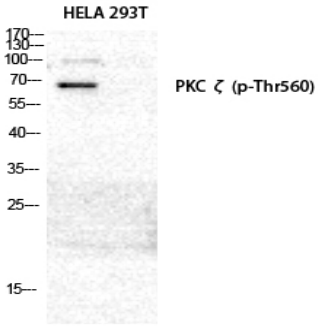

Western Blot analysis of HELA 293T cells using Phospho-PKC ζ （T560） Polyclonal Antibody diluted at 1：2000

Note

For research use only.