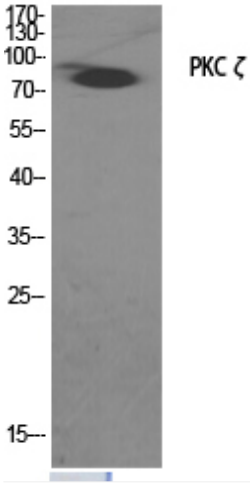
PKC ζ Polyclonal Antibody

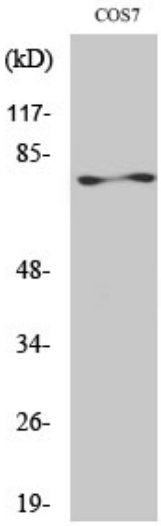
Catalog No	YP-Ab-14936
Isotype	IgG
Reactivity	Human;Mouse;Rat;Monkey
Applications	WB;IHC;IF;ELISA
Gene Name	PRKCZ
Protein Name	Protein kinase C zeta type
Immunogen	The antiserum was produced against synthesized peptide derived from human PKC zeta. AA range:526-575
Specificity	PKC ζ Polyclonal Antibody detects endogenous levels of PKC ζ protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PRKCZ; PKC2; Protein kinase C zeta type; nPKC-zeta
Observed Band	80kD
Cell Pathway	Cytoplasm . Endosome . Cell junction . Membrane ; Peripheral membrane protein . In the retina, localizes in the terminals of the rod bipolar cells (By similarity). Associates with endosomes (PubMed:9566925). Presence of KRIT1, CDH5 and RAP1B is required for its localization to the cell junction (PubMed:7597083). Colocalizes with VAMP2 and WDFY2 in intracellular vesicles (PubMed:17313651). Transiently translocates to the membrane of CA1 hippocampal cells in response to the induction of long term potentiation (By similarity). .; [Isoform 2]: Cytoplasm .
Tissue Specificity	Expressed in brain, and to a lesser extent in lung, kidney and testis.
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
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],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

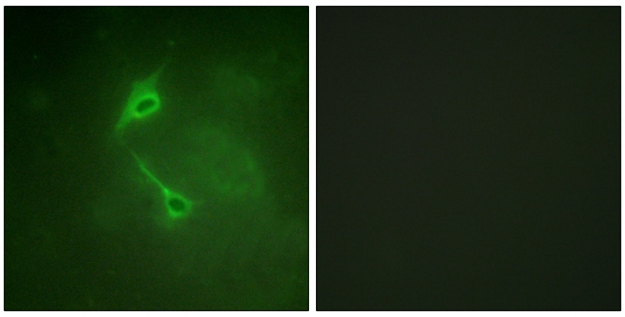
Products Images



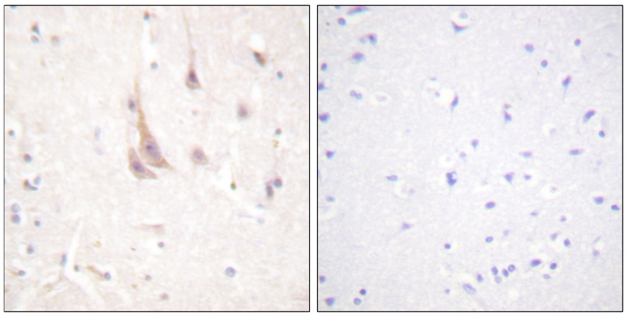
Western Blot analysis of various cells using PKC ζ Polyclonal Antibody diluted at 1:2000



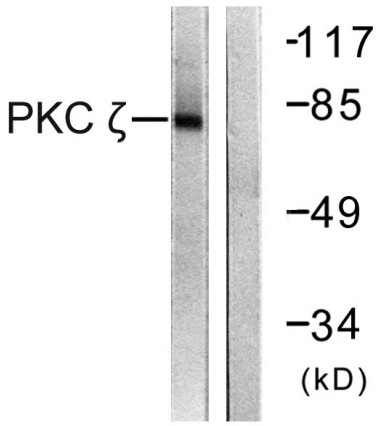
Western Blot analysis of COS7 cells using PKC ζ Polyclonal Antibody diluted at 1:2000



Immunofluorescence analysis of NIH/3T3 cells, using PKC zeta Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using PKC zeta Antibody. The picture on the right is blocked with the synthesized peptide.



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