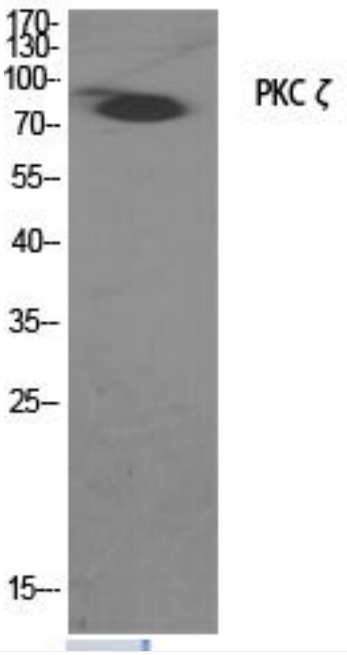
# PKC ζ Monoclonal Antibody

| | |
|---|---|
| **Catalog No** | YP-mAb-14936 |
| **Isotype** | IgG |
| **Reactivity** | Human;Mouse;Rat;Monkey |
| **Applications** | WB |
| **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 Monoclonal Antibody detects endogenous levels of PKC ζ protein. |
| **Formulation** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| **Source** | Monoclonal, Mouse,IgG |
| **Purification** | The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Dilution** | WB 1:500-1:2000 |
| **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 Monoclonal Antibody