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# Anti-PKCα (Central region) Antibody

Catalog # AN1904

## Product Information

| | |
|---|---|
| **Application** | WB, IHC, ICC, IP |
| **Primary Accession** | P17252 |
| **Host** | Mouse |
| **Clonality** | Mouse Monoclonal |
| **Isotype** | IgG2b |
| **Clone Names** | M237 |
| **Calculated MW** | 76750 |

## Additional Information

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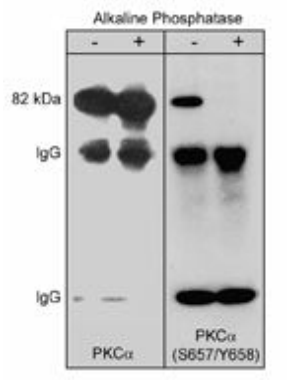
|---|---|
| **Gene ID** | 5578 |
| **Other Names** | PKC alpha |
| **Dilution** | WB~~1:1000 IHC~~1:100~500 ICC~~N/A IP~~N/A |
| **Storage** | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | Anti-PKCα (Central region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |
| **Shipping** | Blue Ice |

## Background

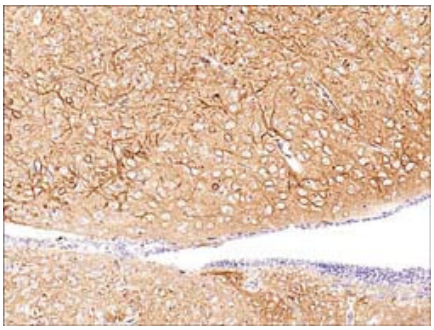
The Protein Kinase C (PKC) family of homologous serine/threonine protein kinases is involved in a number of processes such as growth, differentiation, and cytokine secretion. At least eleven isozymes have been described. PKC consists of a single polypeptide chain containing four conserved regions (C) and five variable regions (V). The N-terminal half interacts with PKC activators Ca2+, phospholipid, diacylglycerol, or phorbol ester, while the C-terminal half contains the catalytic domain. The conventional PKC subfamily (α, β1, βII, and γ) is regulated by both Ca2+ and diacylglycerol. The PKC pathway represents a major signal transduction system that is activated following ligand-stimulation of transmembrane receptors by hormones, neurotransmitters and growth factors. The phosphorylation of multiple sites in conventional PKCs regulates their activity. In mast cells, FceRI stimulation leads to phosphorylation of tyrosine 658 and 662 of PKCα and PKCβI respectively. This phosphorylation requires autophosphorylation of serine 657 and 661 in these respective kinases.

## Images

Western blot analysis of immunoprecipitates from neonatal rat brain lysate using anti-PKCα antibody. Control and alkaline phosphatase treated precipitates




were probed with anti-PKCα (Central region) or anti-phospho-PKCα (Ser-657/Tyr-658). The latter shows no detection of PKCα after phosphatase treatment.



Formalin fixed, citric acid treated parafin sections of adult mouse brain. Sections were probed with anti-PKCα (AN1904) then anti-mouse:HRP before detection using DAB. (Image provided by Carl Hobbs and Dr. Pat Doherty at Wolfson Centre for Age-Related Diseases, King's College London).