

## Anti-PKC $\alpha$ (Central region) Antibody Catalog # AN1904

### Specification

---

#### Anti-PKC $\alpha$ (Central region) Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	<a href="#">P17252</a>
Reactivity	Bovine
Host	Mouse
Clonality	Mouse Monoclonal
Isotype	IgG2b
Calculated MW	76750

#### Anti-PKC $\alpha$ (Central region) Antibody - Additional Information

Gene ID	5578
<b>Other Names</b>	
PKC alpha	

#### 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-PKC $\alpha$  (Central region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Shipping

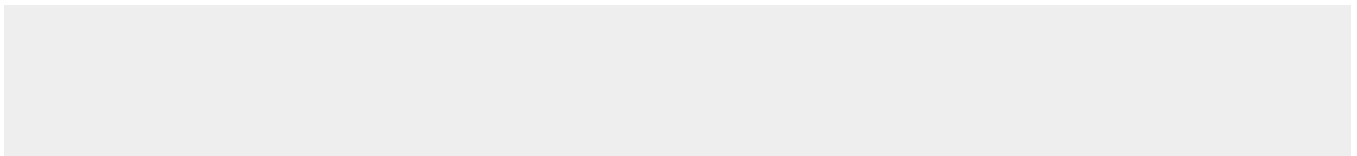
Blue Ice

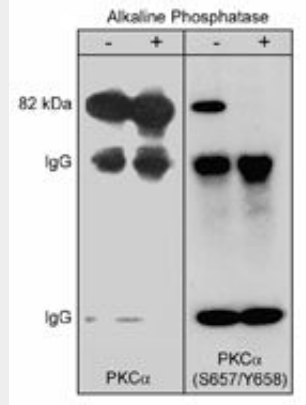
#### Anti-PKC $\alpha$ (Central region) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

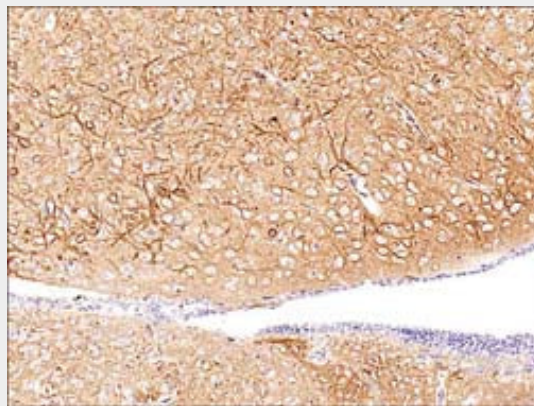
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-PKC $\alpha$ (Central region) Antibody - Images





Western blot analysis of immunoprecipitates from neonatal rat brain lysate using anti-PKC $\alpha$  antibody. Control and alkaline phosphatase treated precipitates were probed with anti-PKC $\alpha$  (Central region) or anti-phospho-PKC $\alpha$  (Ser-657/Tyr-658). The latter shows no detection of PKC $\alpha$  after phosphatase treatment.



Formalin fixed, citric acid treated paraffin sections of adult mouse brain. Sections were probed with anti-PKC $\alpha$  (PM2371) 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).

### Anti-PKC $\alpha$ (Central region) Antibody - 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 Ca<sup>2+</sup>, phospholipid, diacylglycerol, or phorbol ester, while the C-terminal half contains the catalytic domain. The conventional PKC subfamily ( $\alpha$ ,  $\beta$ 1,  $\beta$ II, and  $\gamma$ ) is regulated by both Ca<sup>2+</sup> 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, Fc $\epsilon$ RI stimulation leads to phosphorylation of tyrosine 658 and 662 of PKC $\alpha$  and PKC $\beta$ I respectively. This phosphorylation requires autophosphorylation of serine 657 and 661 in these respective kinases.