

**Anti-PKC $\alpha$  (Ser-657/Tyr-658), Phosphospecific Antibody**  
**Catalog # AN1906****Specification****Anti-PKC $\alpha$  (Ser-657/Tyr-658), Phosphospecific Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P17252</a>
Reactivity	Bovine
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	76750

**Anti-PKC $\alpha$  (Ser-657/Tyr-658), Phosphospecific Antibody - Additional Information**

Gene ID 5578

**Other Names**

PKCalpha, PKCbeta, PKCgamma

**Dilution**

WB~~1:1000

IHC~~1:100~500

**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 $\alpha$  (Ser-657/Tyr-658), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

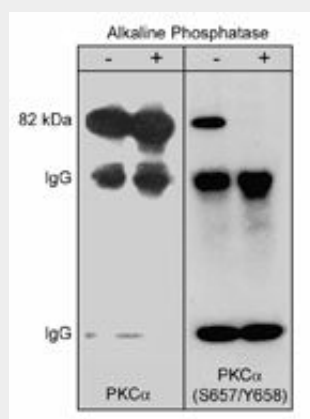
Blue Ice

**Anti-PKC $\alpha$  (Ser-657/Tyr-658), Phosphospecific Antibody - Protocols**

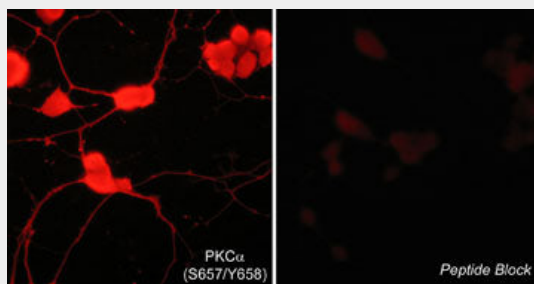
Provided below are standard protocols that you may find useful for product applications.

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

**Anti-PKC $\alpha$  (Ser-657/Tyr-658), Phosphospecific 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.



Immunocytochemical labeling of PKC phosphorylation in aldehyde-fixed and NP-40-permeabilized NGF-differentiated PC12 cells. The cells were labeled with rabbit polyclonal anti-PKC $\alpha$  (Ser-657/Tyr-658) (PP1091) antibody in the absence (Left) or presence (Right) of blocking peptide (PX1095). The antibody was detected using appropriate secondary antibody conjugated to DyLight® 594.

### Anti-PKC $\alpha$ (Ser-657/Tyr-658), Phosphospecific 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 isoforms 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,  $\beta$ 2, 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 $\beta$ 1 respectively. This phosphorylation requires autophosphorylation of serine 657 and 661 in these respective kinases.