

# Anti-PKCα (Ser-657/Tyr-658), Phosphospecific Antibody

Catalog # AN1906

# **Specification**

#### Anti-PKCα (Ser-657/Tyr-658), Phosphospecific Antibody - Product Information

Application WB, IHC
Primary Accession P17252
Reactivity Bovine
Host Rabbit

Clonality Rabbit Polyclonal

Isotype IgG
Calculated MW 76750

#### Anti-PKCα (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

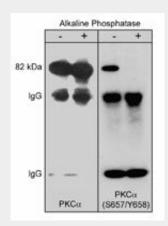
#### Anti-PKCα (Ser-657/Tyr-658), Phosphospecific Antibody - Protocols

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

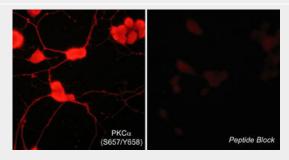
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

#### Anti-PKCα (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-PKCα (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 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 ( $\alpha$ ,  $\beta$ 1,  $\beta$ II, and  $\gamma$ ) 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 PKC $\alpha$  and PKC $\beta$ I respectively. This phosphorylation requires autophosphorylation of serine 657 and 661 in these respective kinases.