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

Catalog # AN1906

Product Information

Application	WB, ICC, IP
Primary Accession	P17252
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	76750

Additional Information

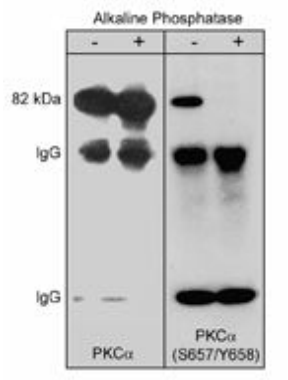
Gene ID	5578
Other Names	PKCalpha, PKCbeta, PKCgamma
Dilution	WB~~1:1000 ICC~~N/A IP~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-PKCα (Ser-657/Tyr-658), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

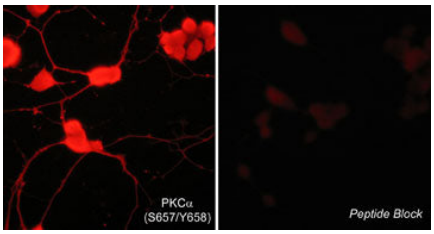
The Protein Kinase C (PKC) family of homologous serine/threonine protein kinases is involved in a number of processes such as growth, differentiation, and cytokine secretion. At least eleven isozymes have been described. PKC consists of a single polypeptide chain containing four conserved regions (C) 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.



Immunocytochemical labeling of PKC phosphorylation in aldehyde-fixed and NP-40-permeabilized NGF-differentiated PC12 cells. The cells were labeled with rabbit polyclonal anti-PKCα (Ser-657/Tyr-658) (AN1906) antibody in the absence (Left) or presence (Right) of blocking peptide (PX1095). The antibody was detected using appropriate secondary antibody conjugated to DyLight® 594.