

PKC α (Central region)

Cat. # PM2371

Host Mouse Monoclonal IgG2b

Size 100 μ l

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 , β I, β II, 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, Fc ϵ RI stimulation leads to phosphorylation of tyrosine 658 and 662 of PKC β I and PKC α , respectively. This phosphorylation requires autophosphorylation of serine 657 and 661 in these respective kinases.

References

Nishizuka, Y. (1988) Nature 334:661.

Kawakami et al. (2003) Proc. Natl. Acad. Sci. USA 100:9470-9475.

Immunogen:

Clone (M237) was generated from a recombinant human PKC α that included amino acids residues in the central region. This region is highly conserved in rat and mouse PKC α , and has homology to conserved regions in PKC β .

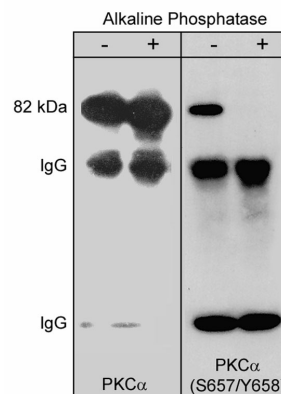
Applications:

WB	1:1000	IP	1:100
ELISA	1:2000		
ICC	1:100		

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

PP1091	PKC α (Ser-657/Tyr-658), phospho-specific	Rabbit Polyclonal
PM1101	PKC (α , β , γ)	Mouse Monoclonal
PM2171	PKC θ (N-terminal region)	Mouse Monoclonal
PM2421	PKC δ (N-terminal region)	Mouse Monoclonal
BL7011	Mouse Brain Lysate	



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

Buffer and Storage:

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100 μ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody detects an 82kDa* protein corresponding to the molecular mass of PKC α on SDS-PAGE immunoblots of neonatal rat brain and adult mouse brain lysates.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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