

PKC (α,β,γ) M499

Mouse Monoclonal IgG2a

Cat. # PM4991

Size 100 μ l

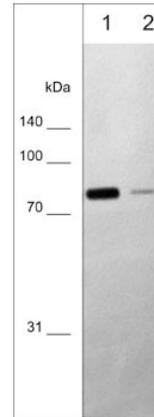
Background

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 Ca^{2+} , phospholipid, diacylglycerol, or phorbol ester, while the C-terminal half contains the catalytic domain. The conventional PKC subfamily (α , β 1, β II, and γ) is regulated by both Ca^{2+} 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 α and PKC β I respectively. This phosphorylation requires autophosphorylation of serine 657 and 661 in these respective kinases.

Background References

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

Kawakami et al. (2003) PNAS. USA 100:9470-9475.



Western blot analysis of PKC isoforms in adult mouse brain lysate. The blot was probed with mouse monoclonal anti-PKC (α,β,γ) clone M499 at 1:250 (lane 1) and 1:1000 (lane 2).

Applications

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

Species Reactivity

Hu, Rt, Ms, Ck

Specificity

This antibody detects 80-82kDa* proteins corresponding to the molecular mass of PKC α , PKC β , and PKC γ on SDS-PAGE immunoblots of mouse brain lysates. Similar results were observed in human and mouse lysates. This antibody detects recombinant PKC α , PKC β 1, and PKC γ , and possibly detects other PKC isoforms as well.

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.

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

Immunogen

Clone (M499) was generated from a recombinant human PKC γ that included amino acids residues 499-697.

Buffer and Storage

Mouse monoclonal antibody purified with protein G chromatography is supplied in 100 μ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at $-20^{\circ}C$. Stable for 1 year.

Related Products

- PM2371 PKC α (Central region) Mouse Monoclonal
- PM1101 PKC (α,β,γ) M110 Mouse Monoclonal
- PM5981 PKC β (N-terminal region) M598 Mouse Monoclonal
- PM2421 PKC δ (N-terminal region) Mouse Monoclonal
- PM5991 PKC γ (C-terminus) M599 Mouse Monoclonal

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