

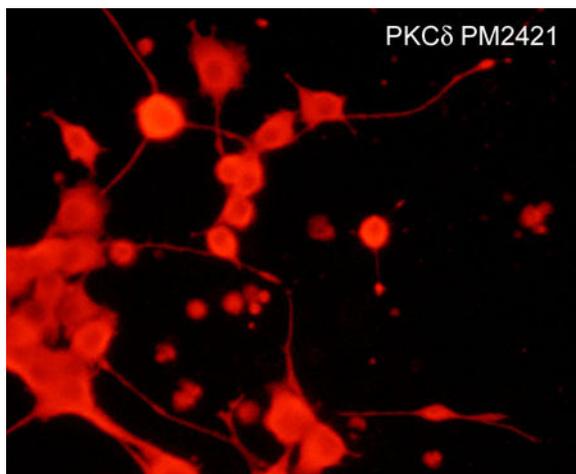
Background

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 1, 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 PKCs regulates their activity.

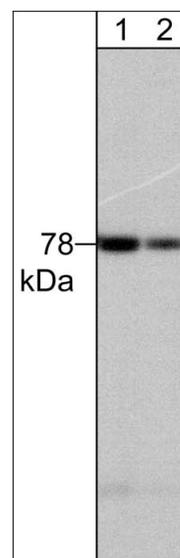
Background References

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

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



Immunocytochemical labeling of PKC δ in rat PC12 cells differentiated with NGF. The cells were labeled with mouse monoclonal PKC δ (N-terminal region) antibody, then detected using appropriate secondary antibody conjugated to Cy3.



Western blot analysis of adult mouse brain tissue lysate. The blot was probed with mouse monoclonal anti-PKC δ (N-terminal region) at 1:125 (lane 1) and 1:500 (lane 2).

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Immunogen

Uniprot ID: Q05655

Clone (M242) was generated from a recombinant human protein that included amino acids residues in the N-terminal region. This sequence is conserved in rat and mouse PKC δ , and has low homology to other PKC family members.

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 . Stable for 1 year.

Applications

| | |
|-------|--------|
| WB | 1:250 |
| ELISA | 1:1000 |
| ICC | 1:100 |

Species Reactivity

Hu, Rt, Ms

Isotype: IgG2b

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, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.

Abbreviations: E = ELISA, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

This antibody detects a 78 kDa* protein corresponding to the molecular mass of PKC δ on SDS-PAGE immunoblots of adult mouse brain tissue lysate.

*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.

"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

Related ProductsPM1101 PKC ($\alpha,\beta,2,\gamma$) Mouse MonoclonalPM2371 PKC α (Central region) Mouse MonoclonalPP1091 PKC α (Ser-657/Tyr-658), phospho-specific Rabbit PolyclonalPM2171 PKC θ (N-terminal region) Mouse Monoclonal

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