PKCα (Central region)

Mouse Monoclonal

Cat. # PM2371
Size 100 µl

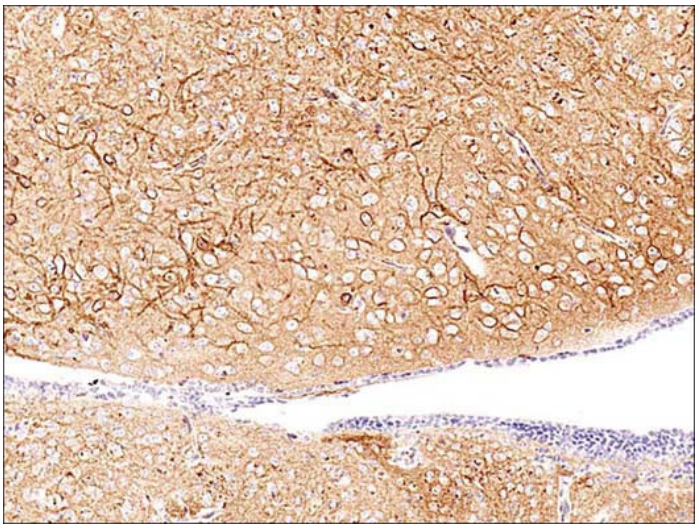
Background

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.

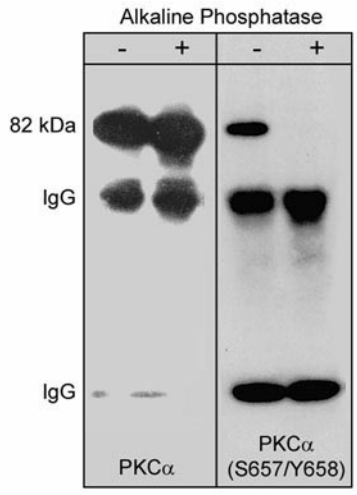
GO mAb
Guaranteed to Outperform

Background References

Nishizuka, Y. (1988) Nature 334:661.
Thiels, E. et al. (2000) J Neurosci. 20(19):7199.
Kawakami et al. (2003) PNAS. USA 100:9470-9475.



Formalin fixed, citric acid treated parafin sections of adult mouse brain. Sections were probed with anti-PKCα (PM2371) then anti-mouse:HRP before detection using DAB. (Image provided by Carl Hobbs and Dr. Pat Doherty at Wolfson Centre for Age-Related Diseases, King's College London).



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.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

www.ecmbio.com
info@ecmbio.com
toll-free: 1-800-859-8202
telephone: 859-879-2075

Rev 7/16/2020

PKCα (Central region)

Mouse Monoclonal

Cat. # PM2371
Size 100 µl

Immunogen

Uniprot ID: P17252

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

Buffer and Storage

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at –20°C. Stable for 1 year.

Applications

WB	1:1000
ELISA	1:2000
ICC	1:300
IP	1:100
IHC	1:500

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: ELISA (Cap) = ELISA capture, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

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

*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 Products

PP1091 PKCα (Ser-657/Tyr-658), phospho-specific Rabbit Polyclonal
PM1101 PKC (α,β2,γ) Mouse Monoclonal
PM2171 PKCθ (N-terminal region) Mouse Monoclonal
PM2421 PKCδ (N-terminal region) Mouse Monoclonal
BL7011 Mouse Brain Lysate

GO mAb
Guaranteed to Outperform

www.ecmbio.com
info@ecmbio.com
toll-free: 1-800-859-8202
telephone: 859-879-2075

Rev 7/16/2020