

Catalog No. LF-PA0084

POLYCLONAL ANTIBODY



Anti- PKC epsilon(protein kinase C epsilon)

Background : Protein kinase C (PKC) is a family of serine-threonine kinases that regulate a broad spectrum of cellular functions such as cell migration and polarity, proliferation, differentiation, and cell death. The family is composed of several genes that express structurally related phospholipid-dependent kinases with distinct means of regulation and tissue distribution. Based on their structures and sensitivities to Ca^{2+} and diacylglycerol (DAG), they have been classified into conventional PKCs (α , β , and γ), novel PKCs (δ , ϵ , η , and θ), and atypical PKCs (ζ and $\lambda/1$). PKCs share a structural backbone, mainly consisting of a regulatory domain at the N-terminus and a catalytic domain at the C-terminus. All family members require phosphatidylserine, a component of the phospholipid bilayer, for their activation.

Some PKCs (PKC α , δ , and ζ) are widely expressed in all tissues, but other isoforms are expressed in a tissue-specific manner. PKC γ , for example, is largely confined to brain and neuronal tissue, PKC ι is mainly expressed in testis and insulin secreting cells, and PKC θ is

mainly expressed in skeletal muscle. PKC epsilon (PKC ϵ) is a calcium-independent and phorbol ester/diacylglycerol-sensitive serine/threonine kinase. PKC ϵ is the only PKC isozyme that has been shown to behave as an oncoprotein. Constitutive activation of PKC ϵ in a small cell lung cancer (SCLC) cell line and the overexpression of PKC ϵ in colonic epithelial cells have been reported.

Immunogen : Synthetic peptide

Host : Rabbit

Type : Polyclonal Antibody

Isotype : IgG

Size : 100 μ l

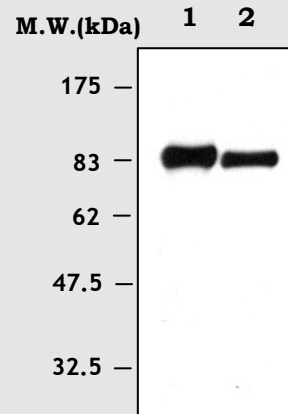
Composition : HEPES with 0.15 M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

Positive control : Mouse brain lysate

Storage : Store for 1 year at $-20^{\circ}C$ from date of shipment $^{\circ}C$

Species cross reactivity

Human NT	Mouse +	Rat +
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Immunoblot Analysis

Lane 1 : Mouse brain lysate
Lane 2 : Rat brain lysate

Applications :

Western Blotting (1:2000)

Background Reference :

- 1) Breitskreutz D. et al., 2007, J Cancer Res Clin Oncol. 133:793-808
- 2) Basu A. and Sivaprasad U., 2007, Cell Signal. 19:1633-1642
- 3) Akita Y., 2002, J Biochem (Tokyo) 132:847-852
- 4) Nishizuka Y., 1995, FASEB J. 9:484-496

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