

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PKCε in direct ELISAs. In direct ELISAs, less than 20% cross-reactivity with recombinant human (rh) PKCδ and rhPKCι is observed. No cross-reactivity with rhPKCα, β1, β2, γ, η, μ, ν, θ, or ζ is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 666823
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human PKCε Gln580-Pro737 Accession # Q02156
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

PKCε (protein kinase C-ε) is an 87 kDa member of the novel PKC subfamily, AGC Ser/Thr protein kinase family of enzymes. It is a widely-expressed Ca⁺⁺-insensitive, phospholipid-dependent enzyme that catalyzes the phosphorylation of multiple proteins. Human PKCε is 737 amino acids (aa) in length. It contains two general regions: a non-Ca⁺⁺-binding plus lipid binding regulatory region (aa 1-99 and 169-292, respectively), and an ATP-binding catalytic domain (aa 408-668). Phosphorylation of PKCε on Thr566, Ser368 and Ser729 activates the enzyme and increases its molecular weight to 92 kDa. One potential splice form shows a 114 aa substitution for aa 118-737. Over aa 580-737, human PKCε is 98% and 99% aa identical to mouse and canine PKCε, respectively.

PRODUCT SPECIFIC NOTICES

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