

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects endogenous human and mouse PKCι/λ in Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 450401
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human PKCι Ile455-Val596 Accession # P41743
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.

Western Blot 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

Members of the Protein Kinase C (PKC) family are serine/threonine protein kinases that play a key regulatory role in a number of cellular functions including cell growth and differentiation, hormone secretion, and gene expression. Multiple genes and alternative splicing result in three subfamilies, which differ in their cofactor requirements: conventional PKC isoforms (α, β_I, β_{II}, and γ) which require calcium and phosphatidylserine (PS), diacylglycerol (DAG) or phorbol esters for activation; novel isoforms (δ, ε, η, and θ), which are calcium-independent but are still regulated by PS, DAG, or phorbol esters; and atypical isoforms (ι / λ, and ζ), which are calcium-independent and do not require PS, DAG, or phorbol esters for activation. PKCι is highly expressed in brain and lung but is also expressed at lower levels in many tissues including pancreatic islets. It is the catalytic component of the Par3-Par6-atypical PKC complex, a key regulator of the formation and maintenance of epithelial cell polarity, adherens junctions, and tight junctions. PKCι has also been shown to be critical for Ras-mediated transformation, invasion, and anchorage-independent growth of intestinal epithelial cells. The rodent homolog is termed PKCλ and is 95% homologous to PKCι.

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