

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse and rat PKCι/λ/ζ in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human PKCι Ile455-Val596 Accession # P41743
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.
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

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 co-factor requirements: conventional PKC isoforms (α, βI, βII, 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 has 72% overall identity to PKCζ. Atypical PKCs have been shown to serve as a convergent downstream target for the PI 3-kinase and TC10 signaling pathways. Stimulation of atypical PKCs by TNF-α has been shown to be required for NF-κB activation. Furthermore, insulin-stimulated atypical PKC activation has been directly implicated in the translocation of GLUT4 and glucose uptake in adipocytes.

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