Human PKCζ Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 453513

Catalog Number: FAB6666T

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PKCζ in direct ELISAs and Western blots. In direct ELISAs, less than 25% cross-reactivity with recombinant human (rh) PKC iota and rhPKC alpha and no cross-reactivity with rhPKC epsilon, eta, beta 1, beta 2, delta, gamma, nu, mu, o
Source	Monoclonal Mouse IgG_{2B} Clone # 453513
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human PKCζ Ile454-Val592 Accession # Q05513
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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

PKCζ (protein kinase C-zeta, EC=2.7.11.13), also called PKC2, is a 592 amino acid (aa), 79 kDa member of the atypical PKC (aPKC) subfamily of Ser/Thr protein kinases. aPKC proteins can be activated by phorbol esters, but are insensitive to calcium and diacylglycerol. PKCζ regulates cell polarity in early development, and is necessary for cytokine-induced chemotaxis of macrophages and cancer cells, chemokine-induced adhesion of neutrophils, and polarization of Th2 cells. It is activated by PDK1 phosphorylation, binds ceramide, and translocates to the plasma membrane where it regulates adherens and tight junction formation. PKCζ contains an OPR domain (aa 15-98), a zinc finger region (aa 130-180), and a protein kinase domain (aa 252-518). PKCζ potential variants of 409 or 539 aa have alternate start sites at aa 184 or aa 9 (also missing aa 186-233), respectively. Within the region used as an immunogen, human PKCζ shares 98% aa identity with mouse and rat PKCζ.

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