

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	<i>E. coli</i> -derived recombinant human PKCζ Ile454-Val592 Accession # Q05513
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.