# Human PKCζ Alexa Fluor® 532-conjugated Antibody

Monoclonal Mouse $IgG_{2B}$ Clone # 453513

Catalog Number: FAB6666X

100 µg

## DESCRIPTION

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| **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<br>Ile454-Val592<br>Accession # Q05513 |
| **Conjugate** | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm |
| **Formulation** | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.*

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| **Western Blot** | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

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| **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

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Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475