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PKCzeta, Active recombinant protein

PKC, PKC, Protein kinase C zeta
Catalog # PBV11294r

Specification

PKCzeta, Active recombinant protein - Product info

Primary Accession	Q05513
Concentration	**0.1**
Calculated MW	**93.0 kDa KDa**

PKCzeta, Active recombinant protein - Additional Info

Gene ID	**5590**
Gene Symbol	**PKCZ**

Other Names
PKC, PKC, Protein kinase C zeta

Source	**Baculovirus (Sf9 insect cells)**
Assay&Purity	**SDS-PAGE; ≥90%**
Assay2&Purity2	**HPLC;**
Recombinant	**Yes**

Format
Liquid

Storage
-80°C; Recombinant proteins in storage buffer (50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 30% glycerol).

PKCzeta, Active recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PKCzeta, Active recombinant protein - Images

PKCzeta, Active recombinant protein - Background

PKCζ (PKC zeta) is an atypical isoform of the PKC family. PKCζ is found in both particulate and soluble fractions and cannot be activated by phorbol ester. Treatment of cells with phorbol ester which activates PKCα, γ, δ, and ε isoforms in NIH3T3 cells significantly reduced proliferation of cells. Overexpression of PKCζ and subsequent phorbol ester treatment abolished phorbol ester-induced

reduction in cell proliferation (1). Overexpression of PKCζ also potentiated phorbol ester-induced mitogen-activated protein (MAP) kinase activation in a PKC-dependent manner. The effects of PKCζ overexpression on proliferation and MAP kinase activation are proportional to the levels of PKCζ expression.
PKCζ as an upstream modulator of p70S6K, an important regulator of cell proliferation (2). Kinase-inactive PKCζ mutant antagonized activation of p70S6K by epidermal growth factor, PDK-1, and activated Cdc42 and PI3-K. Overexpression of a constitutively active PKCζ mutant (myristoylated PKCζ [myr-PKCzeta]) only modestly activated p70S6K but this mutant cooperated with PDK-1 for the activation of p70S6K. PDK-1-induced activation of a C-terminal truncation mutant of p70S6K was also enhanced by myr-PKCζ. p70S6K can associate with both PDK-1 and PKCz in vivo in a growth factor-independent manner, while PDK-1 and PKCζ can also associate with each other, suggesting the existence of a multimeric PI3-K signalling complex.

PKCzeta, Active recombinant protein - References

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Kochs G.,et al.Eur. J. Biochem. 216:597-606(1993).