

PKCmu, Active recombinant protein
PKC, Protein kinase C mu
Catalog # PBV11320r**Specification**

PKCmu, Active recombinant protein - Product info

Primary Accession	Q15139
Concentration	0.1
Calculated MW	131.0 kDa KDa

PKCmu, Active recombinant protein - Additional Info

Gene ID	5587
Gene Symbol	PRKD1
Other Names	
PKC, Protein kinase C mu	

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, 25% glycerol).

PKCmu, 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 Cytometry](#)
- [Cell Culture](#)

PKCmu, Active recombinant protein - Images**PKCmu, Active recombinant protein - Background**

Protein kinase Cmu (PKCmu) is a novel member of the protein kinase C (PKC) family that differs from the other isoenzymes in structural and enzymatic properties. It is characterized by the presence of a pleckstrin homology (PH) domain and an amino-terminal hydrophobic region and has substrate specificity distinct from other PKC isoforms. PKCmu is a ubiquitous PKC isotype with the

highest expression in the thymus, lung and peripheral blood mononuclear cells (1). PKCmu forms a complex in vivo with a phosphatidylinositol 4-kinase and a phosphatidylinositol-4-phosphate 5-kinase. A region of PKCmu between the amino-terminal transmembrane domain and the pleckstrin homology domain is shown to be involved in the association with the lipid kinases (2). PKCmu was also shown to associate with the B cell receptor (BCR) complex and its activity is up-regulated after cross-linking the BCR and CD19 on B cells (3). PKC mu co-precipitates with Syk and phospholipase C- γ 1/2 (PLC γ 1/2) and in vitro phosphorylation of fusion proteins showed that both Syk and PLC γ 1 are potential substrates of PKC mu in vivo. In addition, specific interaction of PKCmu and 14-3-3tau can be shown in the T cell line Jurkat by immunoprecipitation and by pulldown assays (4). 14-3-3tau is not a substrate of PKCmu and strongly down-regulates PKCmu kinase activity in vitro. In response to various stimuli, PKC mu activates the mitogen-activated protein kinase (p42/ERK1 MAPK cascade) but does not affect the related c-jun N-terminal kinase or p38 MAPK (5).

PKCmu, Active recombinant protein - References

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Heilig R., et al. Nature 421:601-607(2003).
Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Bagowski C.P., et al. EMBO J. 18:5567-5576(1999).