

# Recombinant Human Protein Kinase C, Epsilon, His-tagged

Cat. No. PRKCE-62H Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Recombinant Human Protein Kinase C, Epsilon produced in Sf9 is a glycosylated, polypeptide chain containing amino acids 2-737 and having a molecular mass of 87 KD. This protein is the full-length form of the protein with an amino terminal poly His-tag. PKC- $\epsilon$  is purified by proprietary chromatographic techniques.

**Species** Human

**Source** Sf9 Cells

**ProteinLength** 2-737 a.a.

**Description** Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family members also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play a distinct role in cells. The protein encoded by this gene is one of the PKC family members. This kinase has been shown to be involved in many different cellular functions, such as neuron channel activation, apoptosis, cardioprotection from ischemia, heat shock response, as well as insulin exocytosis.

**Physical Appearance** Sterile Filtered clear solution.

**Unit Definition** The Unit Definition is 3250 units/mg. One unit of PKC

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ε activity transfers 1 nmole of phosphate to a PKCε substrate peptide per minute at 30°C. Recombinant human active PKCε also phosphorylates full length myelin basic protein, MARKS, GAP-34, and raf-1 kinase. Activity requires incubation with lipid activators, and may vary depending on the substrate and reaction conditions. The optimal concentration should be determined for each specific application.

**Purity** Greater than 90% as determined by SDS-PAGE.

**Formulation** PKC-ε is supplied at a of 0.1mg/ml in 10mM Tris, pH 7.4, 0.1M NaCl, 20% glycerol, 1mM DTT, 0.1mM EDTA, 0.2mM PMSF and 0.03% Brij-35.

**Storage** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

## GENE INFORMATION

**Gene Name** PRKCE protein kinase C, epsilon [ Homo sapiens ]

**Synonyms** PRKCE; protein kinase C, epsilon; PKCE; MGC125656; MGC125657; nPKC-epsilon;Protein kinase C epsilon type;EC2.7.11.13

**Gene ID** 5581

**mRNA Refseq** NM\_005400

**Protein Refseq** NP\_005391

**UniProt ID** Q02156

**MIM** 176975

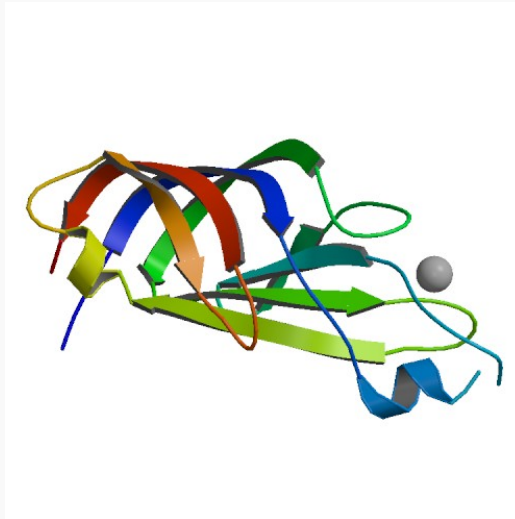
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|----------------------------|---|
| <b>Chromosome Location</b> | 2p21  |
| <b>Pathway</b>             | Fc epsilon RI signaling pathway; Fc gamma R-mediated phagocytosis; Tight junction; Type II diabetes mellitus; Vascular smooth muscle contraction; Signalling by NGF                   |
| <b>Function</b>            | ATP binding; calcium-independent protein kinase C activity; enzyme binding; metal ion binding; signal transducer activity; nucleotide binding; transferase activity; zinc ion binding |

**PDB rendering based on 1gmi.**



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