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Protein Kinase C beta I Human ENZYME

Catalog Number: PRP-318
Quantity: 1 milligram
Format: 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
Host: *Sf9 insect cells*

Background:

Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and 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 protein kinase has been reported to be involved in many different cellular functions, such as B cell activation, apoptosis induction, endothelial cell proliferation, and intestinal sugar absorption. Studies in mice also suggest that this kinase may also regulate neuronal functions and correlate fear-induced conflict behavior after stress. Alternatively spliced transcript variants encoding distinct isoforms have been reported.

Specificity and Preparation:

Protein Kinase C beta I (PKC β I) Human Recombinant produced in Sf9 is a glycosylated, polypeptide chain containing amino acids 2-671 and having a molecular mass of 80 KD. This protein is the full-length form of the protein with an amino terminal poly His-tag. PKC- β I is purified by proprietary chromatographic techniques. Purity is greater than 95% as determined by SDS-PAGE.

Usage and Storage:

2500 units/mg. One unit of PKC β I activity transfers 1 nmole of phosphate to a PKC substrate peptide per minute at 30°C. Recombinant human active PKC β I also phosphorylates full length myelin basic protein, histone, and α pseudosubstrate peptide. Activity requires incubation with lipid activators, and may vary depending on the substrate and reaction conditions. 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.