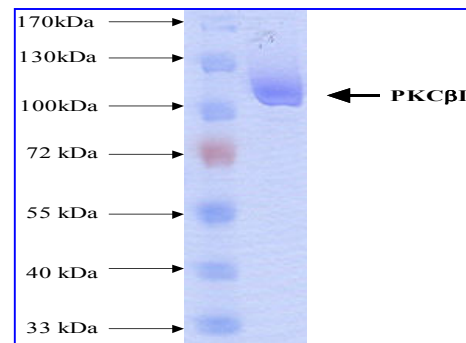


## Active PKC $\beta$ II

<b>CATALOG #:</b>	7704-5
<b>SOURCE:</b>	Sf 9 cells
<b>PURITY:</b>	1 $\mu$ g of PKC $\beta$ II protein was subjected to SDS-PAGE and Coomassie blue staining. The scan of the gel showed >79% purity of the PKC $\beta$ II product, and the band was at ~105 kDa
<b>SPECIFIC ACTIVITY:</b>	339 nmol/min/mg
<b>MOLECULAR WEIGHT:</b>	~105 kDa.
<b>FORMULATION:</b>	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).
<b>STORAGE CONDITIONS:</b>	Store product frozen at or below -70°C. Stable for 1 year at -70°C as undiluted stock. Aliquot to avoid repeated thawing and freezing.

**BACKGROUND DESCRIPTION:** 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. Greenham determined the genomic structure of the PRKCB gene, which consists of 18 exons spanning 375 kb. PRKCB 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. Leitges found that the 2 isoforms, PRKCB1 and PRKCB2, play an important role in B-cell activation and may be functionally linked to Bruton tyrosine kinase in antigen receptor-mediated signal transduction. Su proposed that PRKCB inhibitors and inhibitors of other PRKC isoforms may be effective in treating disorders characterized by dysregulated NF $\kappa$ B survival signaling. Studies in mice also suggest that this kinase may also regulate neuronal functions and correlate fear-induced conflict behavior after stress. Recombinant full-length human PKC  $\beta$ II containing N-terminal GST tag was expressed by baculovirus in Sf 9 insect cells.

**ACTIVITY:** 339 nmol phosphate incorporated into CREBtide per minute per mg protein at 30°C for 15 minutes using a final concentration of 50  $\mu$ M ATP (0.83  $\mu$ Ci/assay).

PKC  $\beta$ II Protein Gel**RELATED PRODUCTS:**

- Active PKC a (**Cat. No. 7714-5**)
- Active PKC epsilon (**Cat. No. 7753-5**)
- Active PKC eta (**Cat. No. 7731-5**)
- Active PKC mu (**Cat. No. 7745-5**)
- Active PKC zeta (**Cat. No. 7718-5**)
- Active PKC delta (**Cat. No. 7739-5**)
- Active PKC gamma (**Cat. No. 7764-5**)
- Active PKC iota (**Cat. No. 7705-5**)

**FOR RESEARCH USE ONLY! Not to be used in humans.**