

**DATASHEET**

Version: 2016-08-17

**PKC $\beta$ 2 Antibody, pAb, Rabbit****Cat. No.:** A00903-40**Size:** 40  $\mu$ g**Synonyms:** Rabbit Anti-PKC beta 2 pAb;**Description:**

Protein kinase C ('PKC', EC 2.7.11.13) is a cyclic nucleotide-independent enzyme that phosphorylates serine and threonine residues in many target proteins. The PKC family has been divided into three groups differing in the enzymes' cofactor requirements: conventional (c)PKC isoforms (comprising  $\alpha$ ,  $\beta$ I (also known as  $\beta$ 1),  $\beta$ II (also known as  $\beta$ 2) and  $\gamma$ ), that require diacylglycerol (DAG),  $\text{Ca}^{2+}$ , and phospholipid for activation; novel (n)PKC isoforms (comprising  $\delta$ ,  $\epsilon$ ,  $\eta$  (also known as PKC-L),  $\theta$  and  $\mu$  (the mouse homolog of human PKC $\mu$ , also known as PKD)) that require DAG but not  $\text{Ca}^{2+}$ ; and atypical (a)PKC isoforms, namely  $\zeta$ ,  $\iota$  and  $\lambda$  (the mouse homolog of human PKC  $\iota$ ) that require neither  $\text{Ca}^{2+}$  nor DAG. A new PKC member has recently been discovered and is referred to as PKCv.

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.

PKC $\beta$ 1 and PKC $\beta$ 2 isoforms are encoded by the same gene but diverge at the C-terminal (V5) region as a result of differential mRNA splicing. The PKC $\beta$ 1/ $\beta$ 2 isoenzymes appear to be widely expressed.

GenScript **Rabbit Anti-PKC $\beta$ 2 Polyclonal Antibody** is developed in rabbit hosts using a synthetic peptide (KLH-coupled) derived from the C-terminal variable (V5) region of human PKC $\beta$ 2.

**Example****Immunogen:** Synthetic peptide (KLH-coupled) derived from the C-terminal variable (V5) region of human PKC $\beta$ 2**Host:** Rabbit**Antigen Synonyms:** Human**Conjugation:** Unconjugated**Formulation:**

0.5 mg/ml in PBS, pH 7.4, containing 30% glycerol and 0.02% sodium azide

**Ig Subclass:** Rabbit IgG

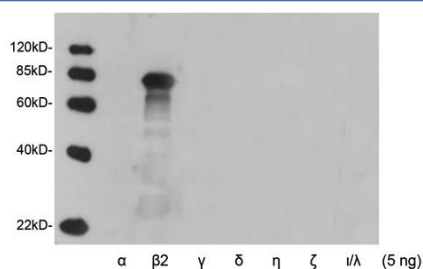
**Specificity:** GenScript Rabbit Anti-PKC $\beta$ 2 Polyclonal Antibody detects endogenous levels of total PKC $\beta$ 2 protein. No cross-reactivity to other PKC isoforms is detected.

**Purification:** Immunoaffinity chromatography**Applications:**

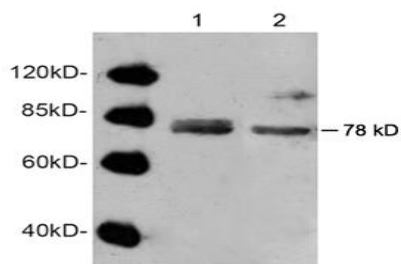
Working concentrations for specific applications should be determined by the investigator. The appropriate concentrations may be affected by secondary antibody affinity, antigen concentration, the sensitivity of the method of detection, temperature, the length of the incubations, and other factors. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**ELISA:** 0.05-0.2  $\mu$ g/ml**Western blot:** 0.5-2  $\mu$ g/ml**Other applications:** user-optimized**Species Reactivity:** Human**Storage:**

The antibody is stable for 2-3 weeks if stored at 2-8°C. For long term storage, aliquot and store at -20°C or below. Avoid repeated freezing and thawing cycles.



Western blot analysis of *E. coli* expressed PKC isoforms using Rabbit Anti-PKC $\beta$ 2 Polyclonal Antibody (GenScript, A00903), demonstrating the isoform-specificity of this antibody.



Western blot analysis of lysates using Rabbit Anti-PKC  $\beta$  II Polyclonal Antibody (GenScript, A00903)

Loading:

Lane 1: HEK-293 cell lysate

Lane 2: Hela cell lysate