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- Expressversand

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# PKC $\nu$ (h): 293 Lysate: sc-158862

## BACKGROUND

Members of the protein kinase C (PKC) family play a key regulatory role in a variety of cellular functions, including cell growth and differentiation, gene expression, hormone secretion and membrane function. PKCs were originally identified as serine/threonine protein kinases whose activity was dependent on calcium and phospholipids. Diacylglycerols (DAG) and tumor promoting phorbol esters bind to and activate PKC. PKCs can be subdivided into at least two major classes, including conventional (c) PKC isoforms ( $\alpha$ ,  $\beta$ ,  $\beta$ II and  $\gamma$ ) and novel (n) PKC isoforms ( $\delta$ ,  $\epsilon$ ,  $\zeta$ ,  $\eta$ ,  $\theta$ ,  $\lambda/\iota$ ,  $\mu$  and  $\nu$ ). Patterns of expression for each PKC isoform differ among tissues and PKC family members exhibit clear differences in their cofactor dependencies. For instance, the kinase activities of PKC  $\delta$  and  $\epsilon$  are independent of  $\text{Ca}^{2+}$ . On the other hand, most of the other PKC members possess phorbol ester-binding activities and kinase activities.

## REFERENCES

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2. Castagna, M., et al. 1982. Direct activation of calcium-activated, phospholipid-dependent protein kinase by tumor-promoting phorbol esters. *J. Biol. Chem.* 257: 7847-7851.
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4. Nishizuka, Y. 1984. The role of protein kinase C in cell surface signal transduction and tumour promotion. *Nature.* 308: 693-698.
5. Nishizuka, Y. 1984. Turnover of inositol phospholipids and signal transduction. *Science.* 225: 1365-1370.
6. Ohno, S., et al. 1991. Structural and functional diversities of a family of signal transducing protein kinases, protein kinase C family; two distinct classes of PKC, conventional cPKC and novel nPKC. *Adv. Enzyme Regul.* 31: 287-303.
7. Olivier, A.R., et al. 1991. Expression and characterization of protein kinase C- $\delta$ . *Eur. J. Biochem.* 200: 805-810.
8. Osada, S., et al. 1992. A new member of the protein kinase C family, nPKC $\theta$ , predominantly expressed in skeletal muscle. *Mol. Cell. Biol.* 12: 3930-3938.

## CHROMOSOMAL LOCATION

Genetic locus: PRKD3 (human) mapping to 2p22.2.

## PRODUCT

PKC  $\nu$  (h): 293 Lysate represents a lysate of human PKC  $\nu$  transfected 293 cells and is provided as 100  $\mu\text{g}$  protein in 200  $\mu\text{l}$  SDS-PAGE buffer.

## STORAGE

Store at  $-20^{\circ}\text{C}$ . Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

PKC  $\nu$  (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive PKC  $\nu$  antibodies. Recommended use: 10-20  $\mu\text{l}$  per lane.

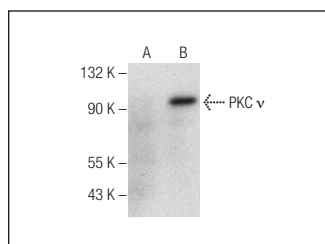
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

PKC  $\nu$  (C-1): sc-376024 is recommended as a positive control antibody for Western Blot analysis of enhanced human PKC  $\nu$  expression in PKC  $\nu$  transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



PKC  $\nu$  (C-1): sc-376024. Western blot analysis of PKC  $\nu$  expression in non-transfected: sc-110760 (A) and human PKC  $\nu$  transfected: sc-158862 (B) 293 whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.