

# PKC $\nu$ (L-20): sc-33408

## 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 ( $\alpha$ ,  $\beta$ I,  $\beta$ II and  $\gamma$ ) and novel (n) PKC isoforms ( $\delta$ ,  $\epsilon$ ,  $\zeta$ ,  $\eta$  and  $\theta$ ). Patterns of expression for each PKC isoform differs among tissues and PKC family members exhibit clear differences in their cofactor dependencies. For instance, the kinase activities of nPKC  $\delta$  and  $\epsilon$  are independent of  $Ca^{2+}$ . On the other hand, nPKC  $\delta$  and  $\epsilon$ , as well as all of the cPKC members, possess phorbol ester-binding activities and kinase activities.

## REFERENCES

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2. Jacques-Silva, M.C., et al. 2004. ERK, PKC and PI3K/Akt pathways mediate extracellular ATP and adenosine-induced proliferation of U138-MG human glioma cell line. *Oncology* 67: 450-459.
3. Felli, M.P., et al. 2005. PKC  $\tau$  mediates pre-TCR signaling and contributes to Notch3-induced T-cell leukemia. *Oncogene* 24: 992-1000.
4. Nabha, S.M., et al. 2005. Upregulation of PKC  $\delta$  contributes to antiestrogen resistance in mammary tumor cells. *Oncogene* 24: 3166-3176.
5. Berg, D.T., et al. 2005. Smad6s regulates plasminogen activator inhibitor-1 through a PKC- $\beta$  dependent up-regulation of TGF- $\beta$ . *J. Biol. Chem.* 280: 14943-14947.
6. Kolkova, K., et al. 2005. Distinct roles of PKC isoforms in NCAM-mediated neurite outgrowth. *J. Neurochem.* 92: 886-894.
7. Khundmiri, S.J., et al. 2005. PTH-mediated regulation of  $Na^+$ - $K^+$ -ATPase requires ERK-dependent translocation of PKC  $\alpha$ . *J. Biol. Chem.* 280: 8705-8713.
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## CHROMOSOMAL LOCATION

Genetic locus: PRKCN (human) mapping to 2p21; Prkcn (mouse) mapping to 17 E3; Prkd1 (mouse) mapping to 12 B3.

## SOURCE

PKC  $\nu$  (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PKC  $\nu$  of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-33408 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

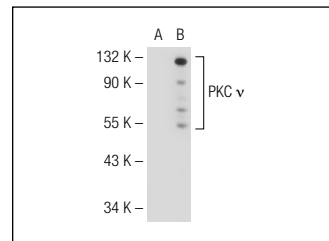
PKC  $\nu$  (L-20) is recommended for detection of PKC  $\nu$  of mouse, rat and human origin and PKC  $\mu$  of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with PKC  $\mu$  of human origin and PKD2 of mouse, rat and human origin.

PKC  $\nu$  (L-20) is also recommended for detection of PKC  $\nu$  in additional species, including equine, canine, bovine, porcine and avian.

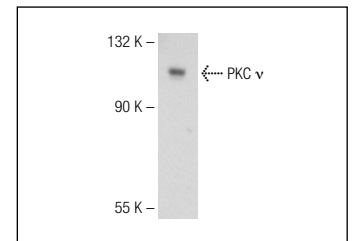
Molecular Weight: 100 kDa.

Positive Controls: H460 whole cell lysate, Ramos cell lysate: sc-2216 or PKC  $\nu$  (m2): 293T Lysate: sc-122608.

## DATA



PKC  $\nu$  (L-20): sc-33408. Western blot analysis of PKC  $\nu$  expression in non-transfected: sc-117752 (A) and mouse PKC  $\nu$  transfected: sc-122608 (B) 293T whole cell lysates.



PKC  $\nu$  (L-20): sc-33408. Western blot analysis of PKC  $\nu$  expression in Ramos whole cell lysate.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

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

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Satisfaction  
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Try **PKC  $\nu$  (C-1): sc-376024** or **PKC (A-3): sc-17769**, our highly recommended monoclonal alternatives to PKC  $\nu$  (L-20).