

PKC ν (N-20): sc-33407

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 (α , β , β II and γ) and novel (n) PKC isoforms (δ , ϵ , ζ , η and θ). 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 δ and ϵ are independent of Ca^{2+} . On the other hand, nPKC δ and ϵ , as well as all of the cPKC members, possess phorbol ester-binding activities and kinase activities.

REFERENCES

1. Arya, R., et al. 2004. Muscle ring finger protein-1 inhibits PKC ϵ activation and prevents cardiomyocyte hypertrophy. *J. Cell Biol.* 167: 1147-1159.
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 τ 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 δ contributes to antiestrogen resistance in mammary tumor cells. *Oncogene* 24: 3166-3176.
5. Kolkova, K., et al. 2005. Distinct roles of PKC isoforms in NCAM-mediated neurite outgrowth. *J. Neurochem.* 92: 886-894.
6. Khundmiri, S.J., et al. 2005. PTH-mediated regulation of Na^+ - K^+ -ATPase requires ERK-dependent translocation of PKC α . *J. Biol. Chem.* 280: 8705-8713.

CHROMOSOMAL LOCATION

Genetic locus: PRKD3 (human) mapping to 2p22.2; Prkd3 (mouse) mapping to 17 E3.

SOURCE

PKC ν (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PKC ν of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-33407 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PKC ν (N-20) is recommended for detection of PKC ν of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

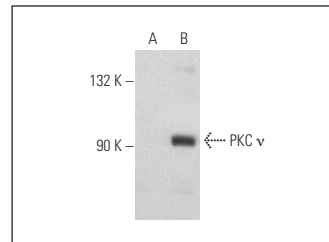
PKC ν (N-20) is also recommended for detection of PKC ν in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PKC ν siRNA (h): sc-44789, PKC ν siRNA (m): sc-44790, PKC ν shRNA Plasmid (h): sc-44789-SH, PKC ν shRNA Plasmid (m): sc-44790-SH, PKC ν shRNA (h) Lentiviral Particles: sc-44789-V and PKC ν shRNA (m) Lentiviral Particles: sc-44790-V.

Molecular Weight of PKC ν : 100 kDa.

Positive Controls: PKC ν (h): 293 Lysate: sc-158862, Ramos cell lysate: sc-2216 or HeLa whole cell lysate: sc-2200.

DATA



PKC ν (N-20): sc-33407. Western blot analysis of PKC ν expression in non-transfected: sc-110760 (A) and human PKC ν transfected: sc-158862 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Karam, M., et al. 2012. Protein kinase D1 stimulates proliferation and enhances tumorigenesis of MCF7 human breast cancer cells through a MEK/ERK-dependent signaling pathway. *Exp. Cell Res.* 318: 558-569.
2. Wang, H., et al. 2014. Protein kinase D3 is essential for prostratin-activated transcription of integrated HIV-1 provirus promoter via NF κ B signaling pathway. *Biomed Res. Int.* 2014: 968027.

RESEARCH USE

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


 MONOS
Satisfaction
Guaranteed

Try **PKC ν (C-1): sc-376024** or **PKC (A-3): sc-17769**, our highly recommended monoclonal alternatives to PKC ν (N-20).