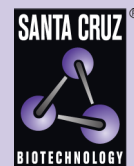


PKC δ (G-9): sc-8402



The Power to Question

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 many different isoforms (α , β I, β II, γ , δ , ϵ , ζ , η , θ , λ /i, μ and ν). 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 δ and ϵ are independent of Ca^{2+} . On the other hand, most of the other PKC members possess phorbol ester-binding activities and kinase activities.

CHROMOSOMAL LOCATION

Genetic locus: PRKCD (human) mapping to 3p21.1; Prkcd (mouse) mapping to 14 B.

SOURCE

PKC δ (G-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 643-673 at the C-terminus of PKC δ of rat origin.

PRODUCT

Each vial contains 200 μg IgG γ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PKC δ (G-9) is available conjugated to agarose (sc-8402 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-8402 HRP), 200 μg /ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8402 PE), fluorescein (sc-8402 FITC), Alexa Fluor[®] 488 (sc-8402 AF488), Alexa Fluor[®] 546 (sc-8402 AF546), Alexa Fluor[®] 594 (sc-8402 AF594) or Alexa Fluor[®] 647 (sc-8402 AF647), 200 μg /ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-8402 AF680) or Alexa Fluor[®] 790 (sc-8402 AF790), 200 μg /ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-8402 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

PKC δ (G-9) is recommended for detection of PKC δ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

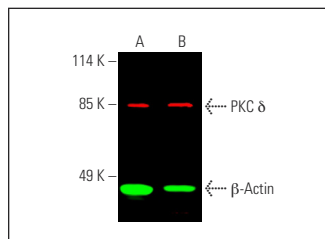
Suitable for use as control antibody for PKC δ siRNA (h): sc-36253, PKC δ siRNA (m): sc-36246, PKC δ shRNA Plasmid (h): sc-36253-SH, PKC δ shRNA Plasmid (m): sc-36246-SH, PKC δ shRNA (h) Lentiviral Particles: sc-36253-V and PKC δ shRNA (m) Lentiviral Particles: sc-36246-V.

Molecular Weight of PKC δ : 78 kDa.

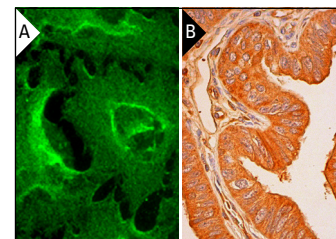
STORAGE

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

DATA



Simultaneous direct near-infrared western blot analysis of PKC δ expression, detected with PKC δ (G-9) Alexa Fluor[®] 790: sc-8402 AF790 and β -Actin expression, detected with β -Actin (C4) Alexa Fluor[®] 680: sc-47778 AF680 in 3611-RF (A) and PC-12 (B) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214.



PKC δ (G-9): sc-8402. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Cross, T., et al. 2000. PKC δ is an apoptotic lamin kinase. *Oncogene* 19: 2331-2337.
- Mukherjee, S., et al. 2009. Isothiocyanates sensitize the effect of chemotherapeutic drugs via modulation of protein kinase C and telomerase in cervical cancer cells. *Mol. Cell. Biochem.* 330: 9-22.
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- Cui, S., et al. 2011. Nuclear receptors TR2 and TR4 recruit multiple epigenetic transcriptional corepressors that associate specifically with the embryonic β -type globin promoters in differentiated adult erythroid cells. *Mol. Cell. Biol.* 31: 3298-3311.
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- Hsieh, C., et al. 2017. Persistent increased PKM ζ in long-term and remote spatial memory. *Neurobiol. Learn. Mem.* 138: 135-144.
- Dallak, M.A. 2018. Acylated ghrelin induces but deacylated ghrelin prevents hepatic steatosis and Insulin resistance in lean rats: effects on DAG/PKC/JNK pathway. *Biomed. Pharmacother.* 105: 299-311.
- Loh, J.T., et al. 2019. Dok3-protein phosphatase 1 interaction attenuates Card9 signaling and neutrophil-dependent antifungal immunity. *J. Clin. Invest.* 129: 2717-2729.

RESEARCH USE

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