**PKC δ (G-9): sc-8402**

**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, γ, δ, ε, ζ, η, θ, λ, 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 Ca²⁺. 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 IgG₁ 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 FC(M); to and either Alexa Fluor® 680 (sc-8402 AF680) or Alexa Fluor® 790 (sc-8402 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FC(M).

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).

**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 1:50-1:1500), 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-36253-3SH, 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.

Positive Controls: 3611-RF whole cell lysate: sc-2215.

**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 (G-9) 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**


**RESEARCH USE**

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**REFERENCES**