**PKC λ/ι (E-7): sc-376344**

**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, β1, β2, γ, δ, ε, ζ, η, θ, λ/ι, 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 α and ε are independent of Ca2+. On the other hand, most of the other PKC members possess phorbol ester-binding activities and kinase activities.

**REFERENCES**


**GENETIC LOCUS**

Genetic locus: PRKCI (human) mapping to 3q26.2; Prkci (mouse) mapping to 3A3.

**APPLICATIONS**

PKC λ/ι (E-7) is recommended for detection of PKC λ/ι of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PKC λ/ι (E-7) is also recommended for detection of PKC λ/ι in additional species, including equine, bovine and porcine.


Molecular Weight of PKC λ/ι: 68 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2410, c4 whole cell lysate: sc-364186 or KNRK whole cell lysate: sc-2214.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG 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-2048B. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 µg agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB: sc-24982 and Immunohistolmount: sc-45086, or Organo/Limonene Mount: sc-45087.

**PRODUCT**

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

PKC λ/ι (E-7) is available conjugated to agarose (sc-376344 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376344 HRP), 200 µg/ml, for WB, IHC (C) and ELISA; to either phycocyanin (sc-376344 PE), fluorescein (sc-376344 FITC), Alexa Fluor® 488 (sc-376344 AF488), Alexa Fluor® 546 (sc-376344 AF546), Alexa Fluor® 594 (sc-376344 AF594) or Alexa Fluor® 647 (sc-376344 AF647), 200 µg/ml; for WB (RGB), IF, IHC (P) and FCM; and to either Alexa Fluor® 680 (sc-376344 AF680) or Alexa Fluor® 790 (sc-376344 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376344 P, (100 µg peptide in 0.5 ml PBS containing <0.1% sodium azide and 0.2% stabilizer protein).

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

**STORAGE**

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

**REFERENCES**