**PKC α (H-7): sc-8393**

**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 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**


**CHROMOSOMAL LOCATION**

Genetic locus: PRKCA (human) mapping to 17q24.2; Prkca (mouse) mapping to 17q24.3.

**SOURCE**

PKC α (H-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 645-672 at the C-terminus of PKC α of human origin.

**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 α (H-7) is available conjugated to agarose (sc-8393 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8393 HRP), 200 µg/ml, for WB, IHCOP and ELISA; to either phycoerythrin (sc-8393 PE), fluorescein (sc-8393 FITC), Alexa Fluor® 488 (sc-8393 AF488), Alexa Fluor® 546 (sc-8393 AF546), Alexa Fluor® 594 (sc-8393 AF594) or Alexa Fluor® 647 (sc-8393 AF647), 200 µg/ml, for WB (RGB), IF, IHCOP and FCM; and to either Alexa Fluor® 680 (sc-8393 AF680) or Alexa Fluor® 790 (sc-8393 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-8393 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**STORAGE**

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

**APPLICATIONS**

PKC α (H-7) is recommended for detection of PKC α 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 α siRNA (h): sc-36243, PKC α siRNA (m): sc-36244, PKC α shRNA Plasmid (h): sc-36243-SH, PKC α shRNA Plasmid (m): sc-36244-SH, PKC α shRNA Plasmid (r): sc-108089-SH, PKC α shRNA (h) Lentiviral Particles: sc-36243-V, PKC α shRNA (m) Lentiviral Particles: sc-36244-V and PKC α shRNA (r) Lentiviral Particles: sc-108089-V.

Molecular Weight of PKC α: 80 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

**DATA**

PKC α (H-7): sc-8393. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and membrane staining (A). Immunofluorescence staining of methanol-fixed K-562 cells showing cytoplasmic and membrane staining (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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