

PKC δ (C-17): sc-213

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 I, 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.

CHROMOSOMAL LOCATION

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

SOURCE

PKC δ (C-17) is available as either rabbit (sc-213) or goat (sc-213-G) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of PKC δ of rat origin.

PRODUCT

Each vial contains 100 μg (sc-213) or 200 μg (sc-213-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for ChIP application, sc-213 X, 200 μg /0.1 ml.

Blocking peptide available for competition studies, sc-213 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PKC δ (C-17) 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) 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.

PKC δ (C-17) X TransCruz antibody is recommended for ChIP assays.

Molecular Weight of PKC δ : 78 kDa.

Positive Controls: 3611-RF whole cell lysate: sc-2215, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

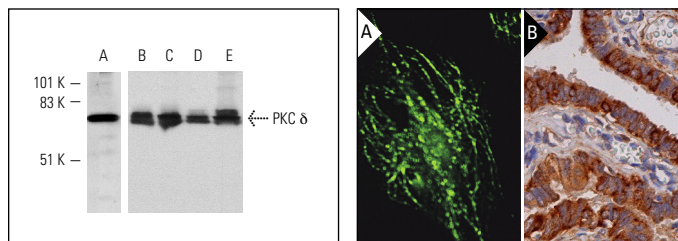
RESEARCH USE

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

STORAGE

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

DATA



Western blot analysis of PKC δ expression in 3611-RF (A), A-431 (B), HeLa (C), Jurkat (D) and K-562 (E) whole cell lysates. Antibodies tested include PKC δ (C-17): sc-213 (A) and PKC δ (C-20): sc-937 (B-E).

PKC δ (C-17): sc-213. Immunofluorescence staining of methanol/acetone fixed rat embryo fibroblasts using fluorescein labeled goat anti-rabbit IgG secondary antibody (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic staining of glandular cells and endothelial cells (B).

SELECT PRODUCT CITATIONS

- Heit, I., et al. 2001. Involvement of PKC δ in contact-dependent inhibition of growth in human and murine fibroblasts. *Oncogene* 20: 5143-5154.
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