

PKC β I (C-16): sc-209

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: PRKCB1 (human) mapping to 16p12.2; Prkcb1 (mouse) mapping to 7 F3.

SOURCE

PKC β I (C-16) is available as either rabbit (sc-209) or goat (sc-209-G) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of PKC β I of human origin.

PRODUCT

Each vial contains either 100 μg (sc-209) or 200 μg (sc-209-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-209 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PKC β I (C-16) is recommended for detection of PKC β I 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). PKC β I (C-16) is also recommended for detection of PKC β I in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for PKC β siRNA (h): sc-29450, PKC β siRNA (m): sc-36255, PKC β shRNA Plasmid (h): sc-29450-SH, PKC β shRNA Plasmid (m): sc-36255-SH, PKC β shRNA (h) Lentiviral Particles: sc-29450-V and PKC β shRNA (m) Lentiviral Particles: sc-36255-V.

Molecular Weight of PKC β I: 79 kDa.

Positive Controls: 3611-RF whole cell lysate: sc-2215, NIH/3T3 whole cell lysate: sc-2210 or A-431 whole cell lysate: sc-2201.

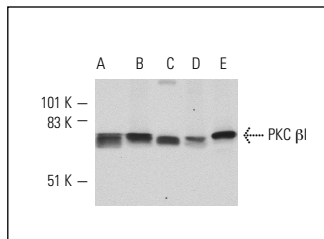
RESEARCH USE

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

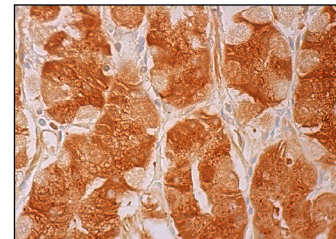
STORAGE

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

DATA



PKC β I (C-16): sc-209. Western blot analysis of PKC β I expression in NIH/3T3 (A), 3611-RF (B), A-431 (C), HeLa (D) and Jurkat (E) whole cell lysates.



PKC β I (C-16)-G: sc-209-G. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

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- Kedei, N., et al. 2011. The synthetic bryostatin analog Merle 23 dissects distinct mechanisms of bryostatin activity in the LNCaP human prostate cancer cell line. *Biochem. Pharmacol.* 81: 1296-1308.
- Vargas-Medrano, J., et al. 2011. PKC β -dependent phosphorylation of the glycine transporter 1. *Neurochem. Int.* 59: 1123-1132.
- Jusuf, P.R., et al. 2011. Origin and determination of inhibitory cell lineages in the vertebrate retina. *J. Neurosci.* 31: 2549-2562.
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- Chen, L., et al. 2012. Possible mechanisms underlying the biphasic regulatory effects of arachidonic acid on Ca^{2+} signaling in HEK293 cells. *Cell. Signal.* 24: 1565-1572.
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- Saba, N.S., et al. 2012. Protein kinase C β inhibition induces apoptosis and inhibits cell cycle progression in acquired immunodeficiency syndrome-related non-hodgkin lymphoma cells. *J. Investig. Med.* 60: 29-38.



Try **PKC β I (E-3): sc-8049** or **PKC (A-3): sc-17769**, our highly recommended monoclonal alternatives to PKC β I (C-16). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **PKC β I (E-3): sc-8049**.