

PLC β 3 (H-84): sc-13958

BACKGROUND

Phosphoinositide-specific phospholipase C (PLC) plays a critical role in the initiation of receptor mediated signal transduction through the generation of the two second messengers, inositol 1,4,5-triphosphate and diacylglycerol from phosphatidylinositol 4,5 bisphosphate. A total of eight mammalian PLC isozymes have been described (PLC β 1, PLC β 2, PLC β 3, PLC β 4, PLC γ 1, PLC γ 2, PLC δ 1 and PLC δ 2). The γ -type enzymes are unique in that they contain SH2 and SH3 domains. Moreover, the two γ -type enzymes, but not the β and δ isozymes, are subject to activation by a number of protein tyrosine kinases which associate with their SH2 domains and induce their activation by phosphorylation. In contrast, activation of PLC β 1, PLC β 2 and PLC β 3 is mediated by the α subunits of the G_q class of heterotrimeric G proteins and by certain $\beta\gamma$ G protein subunits. The regulatory mechanisms for PLC δ 1 and PLC δ 2 are as yet not resolved.

CHROMOSOMAL LOCATION

Genetic locus: PLCB3 (human) mapping to 11q13.1; Plcb3 (mouse) mapping to 19 A.

SOURCE

PLC β 3 (H-84) is a rabbit polyclonal antibody raised against amino acids 1151-1234 mapping at the C-terminus of PLC β 3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PLC β 3 (H-84) is recommended for detection of PLC β 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

PLC β 3 (H-84) is also recommended for detection of PLC β 3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PLC β 3 siRNA (h): sc-36272, PLC β 3 siRNA (m): sc-36273, PLC β 3 siRNA (r): sc-156124 PLC β 3 shRNA Plasmid (h): sc-36272-SH, PLC β 3 shRNA Plasmid (m): sc-36273-SH, PLC β 3 shRNA Plasmid (r): sc-156124-SH PLC β 3 shRNA (h) Lentiviral Particles: sc-36272-V, PLC β 3 shRNA (m) Lentiviral Particles: sc-36273-V and PLC β 3 shRNA (r) Lentiviral Particles: sc-156124-V.

Molecular Weight of PLC β 3: 152 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, MCF7 whole cell lysate: sc-2206 or NIH/3T3 whole cell lysate: sc-2210.

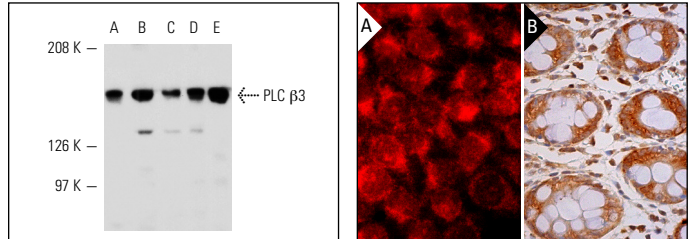
STORAGE

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

RESEARCH USE

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

DATA



PLC β 3 (H-84): sc-13958. Western blot analysis of PLC β 3 expression in A-431 (A), MCF7 (B), U-937 (C), NIH/3T3 (D) and KNRK (E) whole cell lysates.

PLC β 3 (H-84): sc-13958. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

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