

PLC δ 1 (m): 293T Lysate: sc-122626

BACKGROUND

Phosphoinositide-specific phospholipase C (PLC) plays a crucial 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. There are many mammalian PLC iso-zymes, including PLC β 1, PLC β 2, PLC β 3, PLC β 4, PLC γ 1, PLC γ 2, PLC δ 1, PLC δ 2 and PLC ϵ . PLC δ exists as four different isoforms. PLC δ 1, a calcium signal amplifier, is activated by an atypical GTP-binding protein. In addition, PLC δ 1 is an effector for GTP-binding protein transglutaminase II-mediated oxytocin receptor and α 1 β -adrenoreceptor signaling. Mouse PLC δ 1 is highly expressed in brain, heart, lung and testis. PLC δ is abnormally accumulated in autopsied brains with Alzheimer's disease (AD), suggesting that it may play a role in the pathology of AD. PLC δ 2 is markedly expressed in type II intestinal metaplasia and adenocarcinoma. When PLC δ 2 is expressed in type I intestinal metaplasia, the metaplasia is generally considered benign, yet evolves toward neoplastic transformation. Thus, PLC δ 2 expression may be a possible marker of gastric malignant transformation.

REFERENCES

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2. Emori, Y., et al. 1989. A second type of rat phosphoinositide-specific phospholipase C containing a src-related sequence not essential for phosphoinositide-hydrolyzing activity. *J. Biol. Chem.* 264: 21885-21890.
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6. Jhon, D., et al. 1993. Cloning, sequencing, purification and G $_q$ -dependent activation of phospholipase C- β 3. *J. Biol. Chem.* 268: 6654-6661.
7. Matsushima, H., et al. 1995. Changes in platelet phospholipase C protein level and activity in Alzheimer's disease. *Neurobiol. Aging* 16: 895-900.
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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: Plcd1 (mouse) mapping to 9 F3.

PRODUCT

PLC δ 1 (m): 293T Lysate represents a lysate of mouse PLC δ 1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

PLC δ 1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PLC δ 1 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

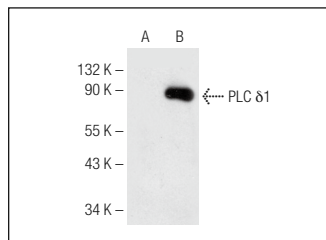
PLC δ 1 (B-9): sc-376058 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse PLC δ 1 expression in PLC δ 1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

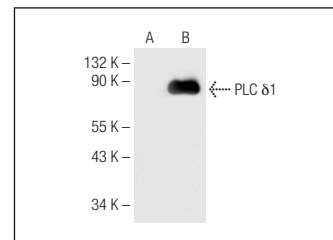
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-2048.

DATA



PLC δ 1 (B-9): sc-376058. Western blot analysis of PLC δ 1 expression in non-transfected: sc-117752 (A) and mouse PLC δ 1 transfected: sc-122626 (B) 293T whole cell lysates.



PLC δ 1 (D-10): sc-374329. Western blot analysis of PLC δ 1 expression in non-transfected: sc-117752 (A) and mouse PLC δ 1 transfected: sc-122626 (B) 293T whole cell lysates.

RESEARCH USE

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