

PLC γ 1 (790-850): sc-4054

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 isozymes, 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 γ 1 is widely distributed in bronchiolar epithelium, type I and II pneumocytes and fibroblasts of the interstitial tissue. Actin-regulatory protein Villin is tyrosine phosphorylated and associates with PLC γ 1 in the brush border of intestinal epithelial cells. Villin regulates PLC γ 1 activity by modifying its own ability to bind phosphatidylinositol 4,5-bisphosphate. PLC γ 1 binds Integrin α 1/ β 1 and modulates Integrin α 1/ β -specific adhesion. PLC γ 1 and Ca²⁺ play a direct role in VEGF-regulated endothelial growth, how-ever this signaling pathway is not linked to FGF-mediated effects in primary endothelial cells. PLC γ 1 is rapidly activated in response to growth factor stimulation and plays an important role in regulating cell proliferation and differentiation. It may also have a protective function during cellular response to oxidative stress.

REFERENCES

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SOURCE

PLC γ 1 (790-850) is expressed in *E. coli* as a 31 kDa tagged fusion protein corresponding to amino acids 790-850 of PLC γ 1 of human origin.

PRODUCT

PLC γ 1 (790-850) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 50 μ g purified protein in PBS containing 5mM DTT and 50% glycerol.

Also available in agarose conjugate form: PLC γ 1 (790-850) AC: sc-4054 AC; supplied as 100 μ g protein conjugated to 0.1 ml agarose in PBS containing 0.1% azide, 0.1% BSA and 10% glycerol.

APPLICATIONS

PLC γ 1(790-850) is recommended for the enrichment of PLC γ 1 associated proteins when used in combination with Glutathione-Agarose (sc-2009).

Agarose conjugate form, sc-4054 AC, is recommended for direct precipitation of target proteins.

STORAGE

Store PLC γ 1 (790-850): sc-4054 at -20° C and store PLC γ 1 (790-850) AC: sc-4054 AC at 4° C; stable for one year from the date of shipment.

RESEARCH USE

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