

PLC γ 2 (H-160): sc-9015

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. 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 . After stimulation of the collagen receptor glycoprotein VI in human platelets, PLC γ 2 associates with several tyrosine-phosphorylated proteins (Syk, SLP-76, Lyn, linker for activation of T cells (LAT) and the FcR γ chain), which bind to its C-terminal SH2 domain. PLC γ 1 associates with Syk in B cells, but PLC γ 2 does not associate with Syk in platelets. The C-terminal SH2 domain is involved in the regulation of PLC γ 2. In addition, Btk can induce PLC γ 2 tyrosine phosphorylation and initiate calcium mobilization in CD72-stimulated B lymphocytes.

CHROMOSOMAL LOCATION

Genetic locus: PLCG2 (human) mapping to 16q23.3; Plcg2 (mouse) mapping to 8 E1.

SOURCE

PLC γ 2 (H-160) is a rabbit polyclonal antibody raised against amino acids 826-985 of PLC γ 2 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.

STORAGE

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

APPLICATIONS

PLC γ 2 (H-160) is recommended for detection of PLC γ 2 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 γ 2 (H-160) is also recommended for detection of PLC γ 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PLC γ 2 siRNA (h): sc-36268, PLC γ 2 siRNA (m): sc-36269, PLC γ 2 shRNA Plasmid (h): sc-36268-SH, PLC γ 2 shRNA Plasmid (m): sc-36269-SH, PLC γ 2 shRNA (h) Lentiviral Particles: sc-36268-V and PLC γ 2 shRNA (m) Lentiviral Particles: sc-36269-V.

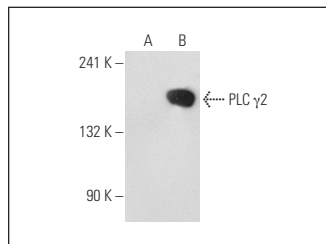
Molecular Weight of PLC γ 2: 155 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, PLC γ 2 (h2): 293T Lysate: sc-172701 or Ramos cell lysate: sc-2216.

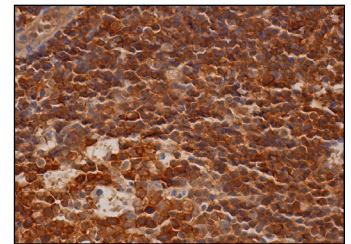
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



PLC γ 2 (H-160): sc-9015. Western blot analysis of PLC γ 2 expression in non-transfected: sc-117752 (A) and human PLC γ 2 transfected: sc-172701 (B) 293T whole cell lysates.



PLC γ 2 (H-160): sc-9015. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic and membrane staining of cells in germinal and non-germinal centers.

SELECT PRODUCT CITATIONS

- Ennaciri, J. and Girard, D. 2009. IL-4R α , a new member that associates with Syk kinase: implication in IL-4-induced human neutrophil functions. *J. Immunol.* 183: 5261-5269.
- Chun, Y.S., et al. 2013. Impaired N-cadherin-mediated adhesion increases the risk of inducible ventricular arrhythmias in isolated rat hearts. *Sci. Res. Essays* 7: 2983-2991.

RESEARCH USE

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

PROTOCOLS

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


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Try **PLC γ 2 (B-10): sc-5283** or **PLC γ 2 (A-3): sc-390389**, our highly recommended monoclonal alternatives to PLC γ 2 (H-160). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PLC γ 2 (B-10): sc-5283**.