SANTA CRUZ BIOTECHNOLOGY, INC.

PLC η2 (D-14): sc-104620

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (IP3) and diacylglycerol (DAG) from phosphatidylinositol 4,5-bisphosphate. There are many mammalian PLC isozymes, including PLC β1, PLC β2, PLC β3, PLC β4, PLC γ1, PLC γ2, PLC δ1, PLC δ2, PLCε and PLC η2. PLC η2 (phospholipase C, η2), also known as PLCH2 or PLCL4, is a 1,416 amino acid cell membrane protein that contains one C2 domain, one PH domain, one PI-PLC X-box and Y-box domain and 2 EF-hand domains. Expressed in kidney and retinal tissue, PLC η2 uses calcium as a cofactor to produce DAG and IP3, thereby playing an important role in the formation and maintenance of neuronal networks. Multiple isoforms of PLC η2 exist due to alternative splicing events.

REFERENCES

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2. Zhou, Y., Wing, M.R., Sondek, J. and Harden, T.K. 2005. Molecular cloning and characterization of PLC η2. Biochem. J. 391: 667-676.
3. Dotson, C.D., Roper, S.D. and Spector, A.C. 2005. PLC β2-independent behavioral avoidance of prototypical bitter-tasting ligands. Chem. Senses 30: 593-600.
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CHROMOSOMAL LOCATION

Genetic locus: Plch2 (mouse) mapping to 4 E2.

SOURCE

PLC η2 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PLC η2 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-104620 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PLC η2 (D-14) is recommended for detection of PLC η2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other PLC family members.

PLC η2 (D-14) is also recommended for detection of PLC η2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for PLC η2 siRNA (m): sc-152297, PLC η2 shRNA Plasmid (m): sc-152297-SH and PLC η2 shRNA (m) Lentiviral Particles: sc-152297-V.

Molecular Weight of PLC 2: 155 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.