

PLC-XD3 (N-13): sc-137673

BACKGROUND

Phosphoinositide-specific phospholipase C (PLC) plays a crucial role in the initiation of receptor-mediated signal transduction through the generation of two second messengers, inositol 1,4,5-triphosphate and diacylglycerol, from phosphatidylinositol 4,5-bisphosphate. PLC isozymes are divided into subclasses based on structure and activation mechanisms. PLC-XD3 (phosphatidylinositol-specific phospholipase C, X domain containing 3), also known as PI-PLC X domain-containing protein 3, is a 321 amino acid protein that contains one PI-PLC X-box domain, which is conserved from prokaryotes to mammals and is present in many PLC isozymes. Both X-box and Y-box domains are also important for catalytic activity in PLC proteins. PLC-XD3 is targeted by D5S430, which is a potential prognostic molecular survival marker for tumors without preoperative treatment. The gene that encodes PLC-XD3 maps to human chromosome 5p13.1.

REFERENCES

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4. Fulp, C.T., et al. 2008. Identification of Arx transcriptional targets in the developing basal forebrain. *Hum. Mol. Genet.* 17: 3740-3760.
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CHROMOSOMAL LOCATION

Genetic locus: PLCXD3 (human) mapping to 5p13.1; Plcxd3 (mouse) mapping to 15 A1.

SOURCE

PLC-XD3 (N-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of PLC-XD3 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137673 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PLC-XD3 (N-13) is recommended for detection of PLC-XD3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with PLC-XD1 or PLC-XD2.

PLC-XD3 (N-13) is also recommended for detection of PLC-XD3 in additional species, including equine and bovine.

Suitable for use as control antibody for PLC-XD3 siRNA (h): sc-91727, PLC-XD3 siRNA (m): sc-152301, PLC-XD3 shRNA Plasmid (h): sc-91727-SH, PLC-XD3 shRNA Plasmid (m): sc-152301-SH, PLC-XD3 shRNA (h) Lentiviral Particles: sc-91727-V and PLC-XD3 shRNA (m) Lentiviral Particles: sc-152301-V.

Molecular Weight of PLC-XD3: 36 kDa.

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) 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.

STORAGE

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

PROTOCOLS

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