

PP2C η (N-16): sc-50861

BACKGROUND

Eukaryotic protein phosphorylation and dephosphorylation on serine and threonine residues regulates numerous cell functions, including division, homeostasis and apoptosis. A group of proteins that play a major role in this process are the serine/threonine protein phosphatases. Protein phosphatase (PP) holoenzyme is a trimeric complex that contains a regulatory subunit, a variable subunit and a catalytic subunit. Families of PP catalytic subunits include PP1 (PP1 α , β and γ), PP2A (α and β), PP2B (calcineurin, PP2B α , β and γ), PP2C (α , β , γ , η and Wip1), PP4 (PPX) and PP5 (PPT). PP2C family members are negative regulators of cell stress response pathways. The PP2C η enzyme contains 406 amino acids and localizes to the nucleus. It contains six motifs conserved in all PP2C family members, and PP2C η has a unique nuclear localization signal between motifs three and four.

REFERENCES

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- Komaki, K., et al. 2003. Molecular cloning of PP2C η , a novel member of the protein phosphatase 2C family. *Biochim. Biophys. Acta* 1630: 130-137.
- Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). *Genome Res.* 14: 2121-2127.
- Brautigan, D.L., et al. 2005. Allosteric activation of protein phosphatase 2C by D-chiro-inositol-galactosamine, a putative mediator mimetic of insulin action. *Biochemistry* 44: 11067-11073.

CHROMOSOMAL LOCATION

Genetic locus: PPM1M (human) mapping to 3p21.2; Ppm1m (mouse) mapping to 9 F1.

SOURCE

PP2C η (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PP2C η 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.

Blocking peptide available for competition studies, sc-50861 P, (100 μ g 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

PP2C η (N-16) is recommended for detection of PP2C η of mouse, rat and human 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 isoforms 3 and 4.

PP2C η (N-16) is also recommended for detection of PP2C η in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PP2C η siRNA (h): sc-61391, PP2C η siRNA (m): sc-61392, PP2C η shRNA Plasmid (h): sc-61391-SH, PP2C η shRNA Plasmid (m): sc-61392-SH, PP2C η shRNA (h) Lentiviral Particles: sc-61391-V and PP2C η shRNA (m) Lentiviral Particles: sc-61392-V.

Molecular Weight of PP2C η : 43 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.