

PPP2R5E (N-12): sc-107061

BACKGROUND

In eukaryotes, the phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions, including division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the protein phosphatases. In general, the protein phosphatase (PP) holoenzyme is a trimeric complex composed of a regulatory subunit, a variable subunit and a catalytic subunit. PPP2R5E (protein phosphatase 2, regulatory subunit B', ϵ isoform) is a 467 amino acid protein that localizes to the cytoplasm and exists as an isoform of the B regulatory subunit within the PP multimeric complex. Functioning as a regulatory subunit, PPP2R5E is thought to modulate both the catalytic activity and the substrate specificity of the PP holoenzyme and may also be responsible for the localization of the complex to subcellular compartments.

REFERENCES

1. McCright, B. and Virshup, D.M. 1995. Identification of a new family of protein phosphatase 2A regulatory subunits. *J. Biol. Chem.* 270: 26123-26128.
2. McCright, B., et al. 1996. Assignment of human protein phosphatase 2A regulatory subunit genes B56 α , B56 β , B56 γ , B56 δ , and B56 ϵ (PPP2R5A-PPP2R5E), highly expressed in muscle and brain, to chromosome regions 1q41, 11q12, 3p21, 6p21.1, and 7p11.2→p12. *Genomics* 36: 168-170.
3. McCright, B., et al. 1996. The B56 family of protein phosphatase 2A (PP2A) regulatory subunits encodes differentiation-induced phosphoproteins that target PP2A to both nucleus and cytoplasm. *J. Biol. Chem.* 271: 22081-22089.
4. Dozier, C., et al. 2004. Regulation of Chk2 phosphorylation by interaction with protein phosphatase 2A via its B' regulatory subunit. *Biol. Cell* 96: 509-517.
5. Ammosova, T., et al. 2005. Dephosphorylation of CDK9 by protein phosphatase 2A and protein phosphatase-1 in Tat-activated HIV-1 transcription. *Retrovirology* 2: 47.
6. Sablina, A.A., et al. 2007. The tumor suppressor PP2A A β regulates the RalA GTPase. *Cell* 129: 969-982.

CHROMOSOMAL LOCATION

Genetic locus: PPP2R5E (human) mapping to 14q23.2; Ppp2r5e (mouse) mapping to 12 C3.

SOURCE

PPP2R5E (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PPP2R5E 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-107061 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PPP2R5E (N-12) is recommended for detection of PPP2R5E 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with family members PPP2R3C or PPP2R4.

PPP2R5E (N-12) is also recommended for detection of PPP2R5E in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PPP2R5E siRNA (h): sc-92446, PPP2R5E siRNA (m): sc-152427, PPP2R5E shRNA Plasmid (h): sc-92446-SH, PPP2R5E shRNA Plasmid (m): sc-152427-SH, PPP2R5E shRNA (h) Lentiviral Particles: sc-92446-V and PPP2R5E shRNA (m) Lentiviral Particles: sc-152427-V.

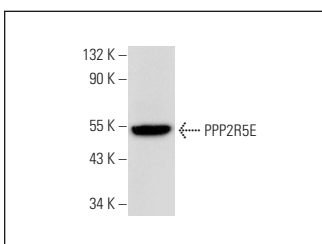
Molecular Weight of PPP2R5E: 55 kDa.

Positive Controls: mouse kidney extract: sc-2255.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



PPP2R5E (N-12): sc-107061. Western blot analysis of PPP2R5E expression in mouse kidney tissue extract.

STORAGE

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

RESEARCH USE

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