SANTA CRUZ BIOTECHNOLOGY, INC.

PP2A-B56-γ (H-40): sc-67038

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Four major families of protein phosphatase catalytic subunits have been identified, designated PP1, PP2A, PP2B (calcineurin) and PP2C. The PP2A family comprises subfamily members PP2Aα and PP2Aβ. An additional protein phosphatase catalytic subunit, PPX (also known as PP4) is a putative member of a novel PP family. The PP2A catalytic subunit associates with a variety of regulatory subunits. Regulatory subunits include PP2A-Aα and -Aβ, PP2A-Bα and -Bβ, PP2A-Cα and -Cβ, PP2A-B56-α, -B56-β, -B56-γ and -B56δ.

CHROMOSOMAL LOCATION

Genetic locus: PPP2R5C (human) mapping to 14q32.31; Ppp2r5c (mouse) mapping to 12 F1.

SOURCE

PP2A-B56-γ (H-40) is a rabbit polyclonal antibody raised against amino acids 431-470 mapping near the C-terminus of PP2A-B56-γ of human origin.

PRODUCT

Each vial contains 200 µg 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

PP2A-B56-γ (H-40) is recommended for detection of PP2A-B56-γ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

PP2A-B56-γ (H-40) is also recommended for detection of PP2A-B56-γ in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PP2A-B56-γ siRNA (h): sc-45847, PP2A-B56-γ siRNA (m): sc-45848, PP2A-B56-γ shRNA Plasmid (h): sc-45847-SH, PP2A-B56-γ shRNA Plasmid (m): sc-45848-SH, PP2A-B56-γ shRNA (h) Lentiviral Particles: sc-45847-V and PP2A-B56-γ shRNA (m) Lentiviral Particles: sc-45848-V.

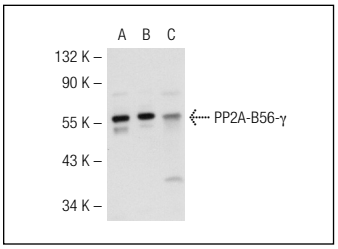
Molecular Weight of PP2A-B56-γ: 61 kDa.

Positive Controls: PP2A-B56-γ (m): 293T Lysate: sc-122716 or HeLa whole cell lysate: sc-2200.

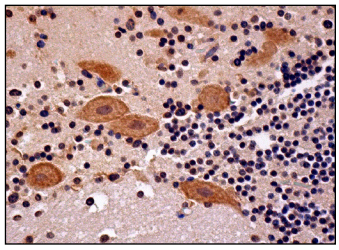
RECOMMENDED SECONDARY REAGENTS

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



PP2A-B56-γ (H-40): sc-67038. Western blot analysis of PP2A-B56-γ expression in non-transfected 293T: sc-117752 (**A**), mouse PP2A-B56-γ transfected 293T: sc-122716 (**B**) and HeLa (**C**) whole cell lysates.



PP2A-B56-γ (H-40): sc-67038. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cells.

SELECT PRODUCT CITATIONS

1. Maghdessian, R., et al. 2010. Ascorbylperoxide contaminating parenteral nutrition perturbs the lipid metabolism in newborn guinea pig. J. Pharmacol. Exp. Ther. 334: 278-284.
2. Kamolrat, T., et al. 2013. Fish oil positively regulates anabolic signalling alongside an increase in whole-body gluconeogenesis in ageing skeletal muscle. Eur. J. Nutr. 52: 647-657.

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.