SANTA CRUZ BIOTECHNOLOGY, INC.

PP2B-Aβ (C-20): sc-6124

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 subunit have been identified, designated PP1, PP2A, PP2B and PP2C. An additional protein phosphatase catalytic subunit, PPX (also known as PP4), is a putative member of a novel PP family. The PP2B family comprises subfamily members PP2B-Aα, PP2B-Aβ and PP2B-Aγ. Two additional regulatory subunits been identified, designated PP2B-B1 and PP2B-B2.

CHROMOSOMAL LOCATION

Genetic locus: PPP3CB (human) mapping to 10q22.2; Ppp3cb (mouse) mapping to 14 A3.

SOURCE

PP2B-Aβ (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PP2B-Aβ 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.

Blocking peptide available for competition studies, sc-6124 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PP2B-Aβ (C-20) is recommended for detection of PP2B-Aβ 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PP2B-Aβ (C-20) is also recommended for detection of PP2B-Aβ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PP2B-Aβ siRNA (h): sc-39195, PP2B-Aβ siRNA (m): sc-39196, PP2B-Aβ shRNA Plasmid (h): sc-39195-SH, PP2B-Aβ shRNA Plasmid (m): sc-39196-SH, PP2B-Aβ shRNA (h) Lentiviral Particles: sc-39195-V and PP2B-Aβ shRNA (m) Lentiviral Particles: sc-39196-V.

Molecular Weight of PP2B-Aβ: 62 kDa.

Positive Controls: Sol8 cell lysate: sc-2249, PP2B-Aβ (h): 293T Lysate: sc-114729 or CTLL-2 cell lysate: sc-2242.

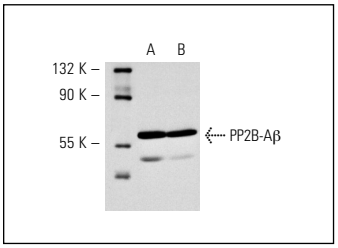
STORAGE

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

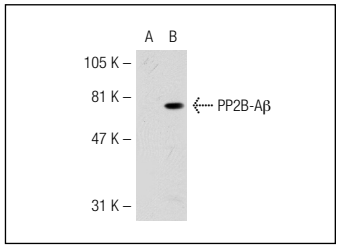
RESEARCH USE

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

DATA



PP2B-Aβ (C-20): sc-6124. Western blot analysis of PP2B-Aβ expression in Sol8 (**A**) and CTLL-2 (**B**) whole cell lysates.



PP2B-Aβ (C-20): sc-6124. Western blot analysis of PP2B-Aβ expression in non-transfected: sc-117752 (**A**) and human PP2B-Aβ transfected: sc-114729 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Taigen, T., et al. 2000. Targeted inhibition of calcineurin prevents agonist-induced cardiomyocyte hypertrophy. Proc. Natl. Acad. Sci. USA 97: 1196-1201.
2. Li, H.H., et al. 2004. Atrogin-1/muscle atrophy F-box inhibits calcineurin-dependent cardiac hypertrophy by participating in an SCF ubiquitin ligase complex. J. Clin. Invest. 114: 1058-1071.
3. Jayanthi, S., et al. 2005. Calcineurin/NFAT-induced up-regulation of the FAS ligand/FAS death pathway is involved in methamphetamine-induced neuronal apoptosis. Proc. Natl. Acad. Sci. USA 102: 868-873.
4. Ackermann, G.E., et al. 2008. S100A1 deficiency results in prolonged ventricular repolarization in response to sympathetic activation. Gen. Physiol. Biophys. 27: 127-142.
5. Rana, O.R., et al. 2009. Regulation of nerve growth factor in the heart: the role of the calcineurin-NFAT pathway. J. Mol. Cell. Cardiol. 46: 568-578.
6. Herum, K.M., et al. 2013. Syndecan-4 signaling via NFAT regulates extracellular matrix production and cardiac myofibroblast differentiation in response to mechanical stress. J. Mol. Cell. Cardiol. 54: 73-81.
7. Danielsen, A.A., et al. 2013. Splice cassette II of Na^+,$HCO3^-$ cotransporter NBCn1 (slc4a7) interacts with calcineurin A: implications for transporter activity and intracellular pH control during rat artery contractions. J. Biol. Chem. 288: 8146-8155.
8. Herum, K.M., et al. 2013. Syndecan-4 signaling via NFAT regulates extracellular matrix production and cardiac myofibroblast differentiation in response to mechanical stress. J. Mol. Cell. Cardiol. 54: 73-81.