

Anti-PP2A-alpha/PPP2CA Antibody

Catalog Number: PA1068

About PPP2CA

The catalytic subunit of human protein phosphatase 2A (PPP2CA) encodes a 309-amino acid polypeptide. It is localized to chromosome 5. The gene (approximately 30 kbp) is composed of seven exons and six introns. It is predicted to be important for phosphatase enzymatic activity. Methylation of the C-terminal leucine residue (Leu309) of protein serine/threonine phosphatase 2A catalytic subunit (PP2AC) is known to regulate catalytic activity in vitro. Furthermore, PP2A has a fundamental role in cardiac function, and suggests that disturbances in protein phosphatase expression and activity may cause or exacerbate the course of cardiac diseases.

Overview

Product Name	Anti-PP2A-alpha/PPP2CA Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PP2A-alpha/PPP2CA Antibody catalog # PA1068. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P67775

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human PP2A-alpha, identical to the related rat and mouse sequences.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat, By Heat</p>

Anti-PP2A-alpha/PPP2CA Antibody (PA1068) Images

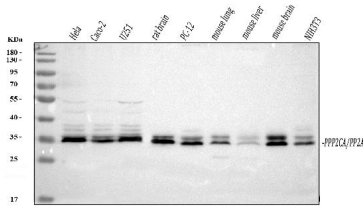


Figure 1. Western blot analysis of PP2A-alpha using anti-PP2A-alpha antibody (PA1068). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human CACO-2 whole cell lysates,
Lane 3: human U251 whole cell lysates,
Lane 4: rat brain tissue lysates,
Lane 5: rat PC-12 whole cell lysates,
Lane 6: mouse lung tissue lysates,
Lane 7: mouse liver tissue lysates,
Lane 8: mouse brain tissue lysates,
Lane 9: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PP2A-alpha antigen affinity purified polyclonal antibody (Catalog # PA1068) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PP2A-alpha at approximately 36 kDa. The expected band size for PP2A-alpha is at 36 kDa.

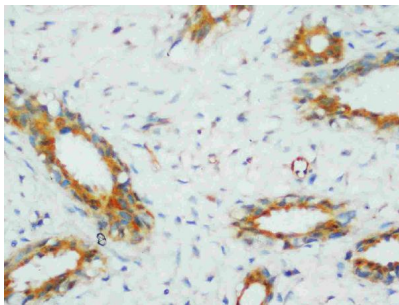
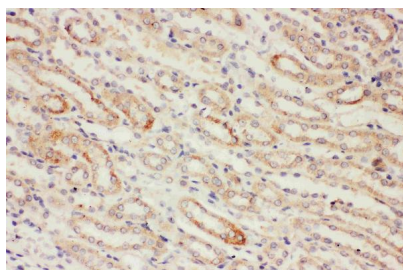


Figure 2. IHC analysis of PP2A-alpha using anti-PP2A-alpha antibody (PA1068). PP2A-alpha was detected in a paraffin-embedded section of Human Mammary Cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-PP2A-alpha Antibody (PA1068) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Figure 3. IHC analysis of PP2A-alpha using anti-PP2A-alpha antibody (PA1068). PP2A-alpha was detected in a paraffin-embedded section of Rat Kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-PP2A-alpha Antibody (PA1068) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as



secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

1 Publications Citing This Product

1. PubMed ID: 19891536, Tian Hp, Qiu Tz, Zhao J, Li Lx, Guo J. Brain Inj. 2009 Dec;23(13-14):1073-80. Doi: 10.3109/02699050903379388. Sphingomyelinase-Induced Ceramide Production Stimulate Calcium-Independent Jnk And Pp2A Activation Following Cerebral Ischemia.

Visit bosterbio.com/anti-pp2a-alpha-antibody-pa1068-boster.html to see all 1 publications.

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