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3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-PPP3CA Antibody Picoband®

Catalog Number: A03026-3

About PPP3CA

Calcineurin A is also known as PPP3CA. It is mapped to 4q24. Semsarian et al. (1999) and Musaro et al. (1999) independently showed that IGF1stimulates skeletal muscle hypertrophy and a switch to glycolytic metabolism by activating calcineurin A and inducing the nuclear translocation of transcription factor NFATC1. Semsarian et al. (1999) found that hypertrophy was suppressed by the calcineurin inhibitors cyclosporin A or FK506, but not by inhibitors of the MAP kinase or phosphatidylinositol-3-OH kinase pathways. Musaro et al. (1999) showed that expression of a dominant-negative calcineurin mutant also repressed myocyte differentiation and hypertrophy. Musaro et al. (1999) demonstrated that either IGF1 or activated calcineurin induces expression of transcription factor GATA2, which accumulates in a subset of myocyte nuclei, where it associates with calcineurin and a specific dephosphorylated isoform of NFATC1.

Overview

Product Name	Anti-PPP3CA Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-PPP3CA Antibody Picoband® catalog # A03026-3. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q08209

Technical Details

Immunogen	E.coli-derived human PPP3CA recombinant protein (Position: E3-D511).
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 ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml, -

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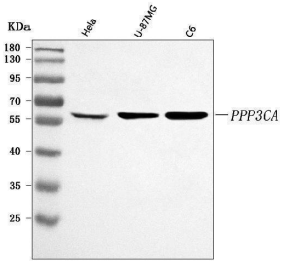
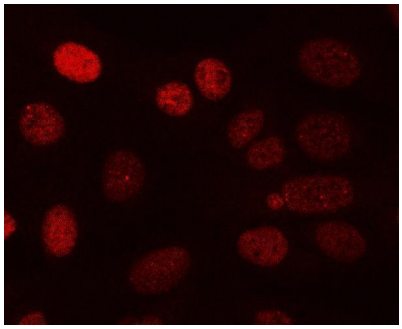
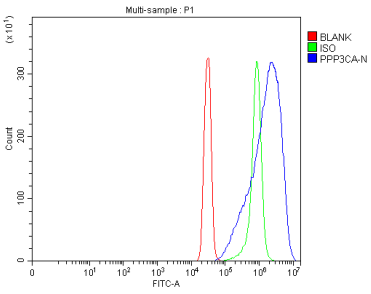
Anti-PPP3CA Antibody Picoband® (A03026-3) Images



Western blot analysis of PPP3CA using anti-PPP3CA antibody (A03026-3). 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 U-87MG whole cell lysates, Lane 3: rat C6 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-PPP3CA antigen affinity purified polyclonal antibody (Catalog # A03026-3) 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 PPP3CA at approximately 59 kDa. The expected band size for PPP3CA is at 59 kDa.



IF analysis of PPP3CA using anti-PPP3CA antibody (A03026-3). PPP3CA was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-PPP3CA Antibody (A03026-3) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of SiHa cells using anti-PPP3CA antibody (A03026-3). Overlay histogram showing SiHa cells stained with A03026-3 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PPP3CA Antibody (A03026-3, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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For Research Use Only. Not for use in diagnostic procedures.