BOSTER BIOLOGICAL TECHNOLOGY
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Anti-PHPT1 Antibody Picoband®

Catalog Number: A06841

About PHPT1

14 kDa phosphohistidine phosphatase is an enzyme that in humans is encoded by the PHPT1 gene. This gene encodes an enzyme that catalyzes the reversible dephosphorylation of histidine residues in proteins. It may be involved in the dephosphorylation of G-beta and ATP citrate lyase and in negatively regulating CD4 T lymphocytes by dephosphorylation and inhibition of KCa3.1 channels. Alternative splicing results in multiple transcript variants.

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Overview

Product Name	Anti-PHPT1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PHPT1 Antibody Picoband® catalog # A06841. Tested in WB, IHC, FCM, ELISA applications. This antibody reacts with Human, Mouse, 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, IHC, 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	Q9NRX4

Technical Details

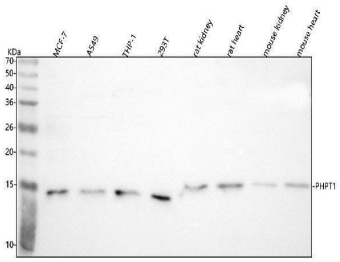
Immunogen	E.coli-derived human PHPT1 recombinant protein (Position: M1-Y125). Human PHPT1 shares 84.4% amino acid (aa) sequence identity with mouse PHPT1.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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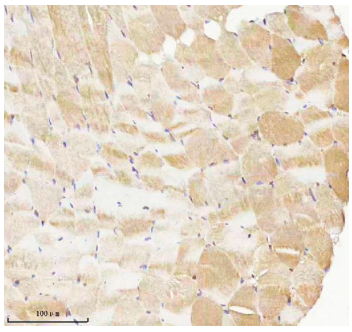
Anti-PHPT1 Antibody Picoband® (A06841) Images



Western blot analysis of PHPT1 using anti-PHPT1 antibody (A06841). 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 MCF-7 whole cell lysates, Lane 2: human A549 whole cell lysates, Lane 3: human THP-1 whole cell lysates, Lane 4: human 293T whole cell lysates, Lane 5: rat kidney tissue lysates, Lane 6: rat heart tissue lysates, Lane 7: mouse kidney tissue lysates, Lane 8: mouse heart tissue 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-PHPT1 antigen affinity purified polyclonal antibody (Catalog # A06841) 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 PHPT1 at approximately 14 kDa. The expected band size for PHPT1 is at 14 kDa.



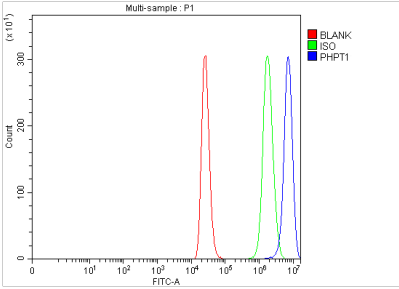
IHC analysis of PHPT1 using anti-PHPT1 antibody (A06841). PHPT1 was detected in a paraffin-embedded section of human skeletal muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PHPT1 Antibody (A06841) 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.



IHC analysis of PHPT1 using anti-PHPT1 antibody (A06841). PHPT1 was detected in a paraffin-embedded section of human skeletal muscle 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 2 ug/ml rabbit anti-PHPT1 Antibody (A06841) 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.

Flow Cytometry analysis of THP-1 cells using anti-PHPT1

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antibody (A06841). Overlay histogram showing THP-1 cells stained with A06841 (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-PHPT1 Antibody (A06841, 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.

Anti-PHPT1 Antibody

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