

Anti-AMPD1 Antibody Picoband®

Catalog Number: A04209-1

About AMPD1

AMP deaminase 1 is an enzyme that in humans is encoded by the AMPD1 gene. Adenosine monophosphate deaminase 1 catalyzes the deamination of AMP to IMP in skeletal muscle and plays an important role in the purine nucleotide cycle. Two other genes have been identified, AMPD2 and AMPD3, for the liver- and erythrocyte-specific isoforms, respectively. Deficiency of the muscle-specific enzyme is apparently a common cause of exercise-induced myopathy and probably the most common cause of metabolic myopathy in the human. Alternatively spliced transcript variants encoding different isoforms have been identified in this gene.

Overview

Product Name	Anti-AMPD1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-AMPD1 Antibody Picoband® catalog # A04209-1. Tested in WB, IHC, Flow Cytometry, 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 Na ₂ HPO ₄ .
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	P23109

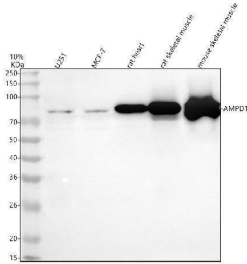
Technical Details

Immunogen	E.coli-derived human AMPD1 recombinant protein (Position: K5-E747). Human AMPD1 shares 92.7% amino acid (aa) sequence identity with both mouse and rat AMPD1.
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).
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.

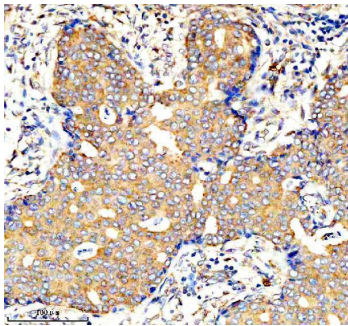
Suggested Dilutions

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/1x10⁶ cells, Human
ELISA, 0.1-0.5 ug/ml, -

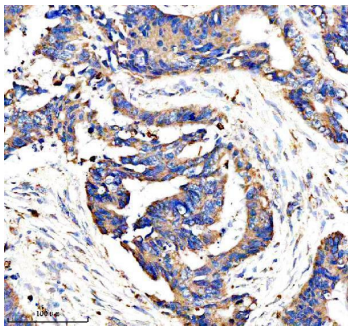
Anti-AMPD1 Antibody Picoband® (A04209-1) Images



Western blot analysis of AMPD1 using anti-AMPD1 antibody (A04209-1). 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 U251 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: rat heart tissue lysates, Lane 4: rat skeletal muscle tissue lysates, Lane 5: mouse skeletal muscle 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-AMPD1 antigen affinity purified polyclonal antibody (Catalog # A04209-1) 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 AMPD1 at approximately 86 kDa. The expected band size for AMPD1 is at 86 kDa.

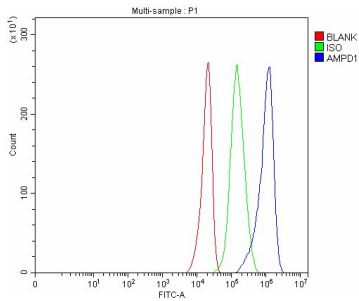


IHC analysis of AMPD1 using anti-AMPD1 antibody (A04209-1). AMPD1 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-AMPD1 Antibody (A04209-1) 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 AMPD1 using anti-AMPD1 antibody (A04209-1). AMPD1 was detected in a paraffin-embedded section of human colon 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 2 ug/ml rabbit anti-AMPD1 Antibody (A04209-1) 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 U251 cells using anti-AMPD1 antibody (A04209-1). Overlay histogram showing U251 cells stained with A04209-1 (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-AMPD1 Antibody (A04209-1, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-AMPD1 Antibody

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