BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Acetyl Coenzyme A Carboxylase/ACACB Antibody Picoband™

Catalog Number: A03668-2

About ACACB

Acetyl-CoA carboxylase 2 also known as ACC-beta or ACC2 is an enzyme that in humans is encoded by the ACACB gene. It is mapped to 12q24.11. Acetyl-CoA carboxylase (ACC) is a complex multifunctional enzyme system. ACC is a biotin-containing enzyme which catalyzes the carboxylation of acetyl-CoA to malonyl-CoA, the rate-limiting step in fatty acid synthesis. ACC-beta is thought to control fatty acid oxidation by means of the ability of malonyl-CoA to inhibit carnitine-palmitoyl-CoA transferase I, the rate-limiting step in fatty acid uptake and oxidation by mitochondria. ACC-beta may be involved in the regulation of fatty acid oxidation, rather than fatty acid biosynthesis. There is evidence for the presence of two ACC-beta isoforms.

Overview

Product Name	Anti-Acetyl Coenzyme A Carboxylase/ACACB Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Acetyl Coenzyme A Carboxylase/ACACB Antibody Picoband™ catalog # A03668-2. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	O00763

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Acetyl Coenzyme A Carboxylase/ACACB, which shares 64.7% amino acid (aa) sequence identity with mouse Acetyl Coenzyme A Carboxylase/ACACB.
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

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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, By Heat Flow Cytometry, 1-3ug/1x10^6 cells, Human

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Anti-Acetyl Coenzyme A Carboxylase/ACACB Antibody Picoband™ (A03668-2) Images

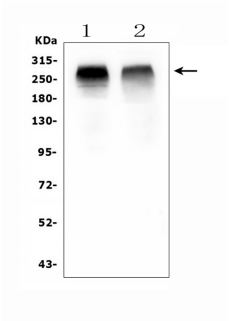

Figure 1. Western blot analysis of ACACB using anti-ACACB antibody (A03668-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat skeletal muscle tissue lysates
Lane 2: mouse skeletal muscle tissue lysates
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-ACACB antigen affinity purified polyclonal antibody (Catalog # A03668-2) 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 1:10000 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 ACACB at approximately 277KD. The expected band size for ACACB is at 277KD.

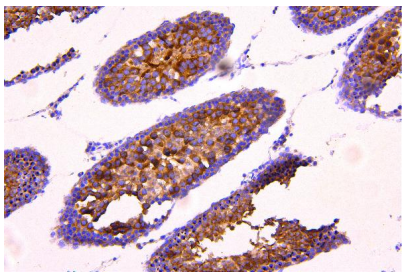

Figure 2. IHC analysis of ACACB using anti-ACACB antibody (A03668-2).
ACACB was detected in paraffin-embedded section of rat testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue se

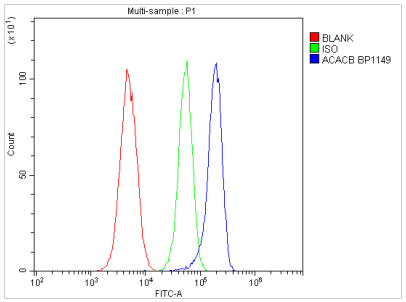

Figure 3. Flow Cytometry analysis of HL-60 cells using anti-ACACB antibody (A03668-2).
Overlay histogram showing HL-60 cells stained with A03668-2 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ACACB