

Anti-ACSS2 Antibody Picoband™

Catalog Number: A02809-1

About ACSS2

Acyl-coenzyme A synthetase short-chain family member 2 is an enzyme that in humans is encoded by the ACSS2 gene. This gene encodes a cytosolic enzyme that catalyzes the activation of acetate for use in lipid synthesis and energy generation. The protein acts as a monomer and produces acetyl-CoA from acetate in a reaction that requires ATP. Expression of this gene is regulated by sterol regulatory element-binding proteins, transcription factors that activate genes required for the synthesis of cholesterol and unsaturated fatty acids. Alternative splicing results in multiple transcript variants.

Overview

Product Name	Anti-ACSS2 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ACSS2 Antibody Picoband™ catalog # A02809-1. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, 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	Q9NR19

Technical Details

Immunogen	E.coli-derived human ACSS2 recombinant protein (Position: E201-A651).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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 µg/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, 0.1-0.25 µg/ml, Human, Mouse, Rat

Flow Cytometry, 1-3 µg/1x10⁶ cells, Human

Direct ELISA, 0.1-0.5 µg/ml, Human

Anti-ACSS2 Antibody Picoband™ (A02809-1) Images

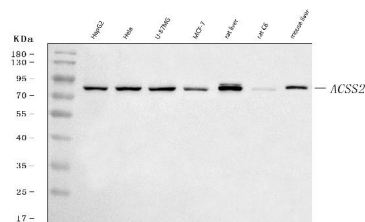


Figure 1. Western blot analysis of ACSS2 using anti-ACSS2 antibody (A02809-1).

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 HepG2 whole cell lysates,
Lane 2: human Hela whole cell lysates,
Lane 3: human U-87MG whole cell lysates,
Lane 4: human MCF-7 whole cell lysates,
Lane 5: rat liver tissue lysates,
Lane 6: rat C6 whole cell lysates,
Lane 7: mouse liver 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-ACSS2 antigen affinity purified polyclonal antibody (Catalog # A02809-1) at 0.25 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 ACSS2 at approximately 79 kDa. The expected band size for ACSS2 is at 79 kDa.

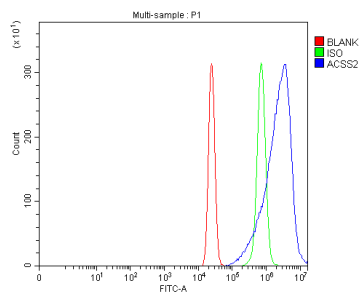


Figure 2. Flow Cytometry analysis of U2OS cells using anti-ACSS2 antibody (A02809-1).

Overlay histogram showing U2OS cells stained with A02809-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ACSS2 Antibody (A02809-1, 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 (Red line) was also used as a control.

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