

Anti-ASS1 Picoband™ Antibody

Catalog Number: A02212-1

About ASS1

Argininosuccinate synthetase is an enzyme that in humans is encoded by the ASS1 gene. It is mapped to 9q34.11. The protein encoded by this gene catalyzes the penultimate step of the arginine biosynthetic pathway. There are approximately 10 to 14 copies of this gene including the pseudogenes scattered across the human genome, among which the one located on chromosome 9 appears to be the only functional gene for argininosuccinate synthetase. Mutations in the chromosome 9 copy of this gene cause citrullinemia. Two transcript variants encoding the same protein have been found for this gene.

Overview

Product Name	Anti-ASS1 Picoband™ Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ASS1 Picoband™ Antibody catalog # A02212-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P00966

Technical Details

Immunogen	E.coli-derived human ASS1 recombinant protein (Position: S3-S365).
Predicted Reactive Species	Human
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) and ICC.
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 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.25ug/ml, Human, Mouse, Rat</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat</p> <p>Immunocytochemistry/Immunofluorescence, 2ug/ml, Human</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Human</p> <p>Direct ELISA, 0.1-0.5ug/ml, Human</p>

Anti-ASS1 Picoband™ Antibody (A02212-1) Images

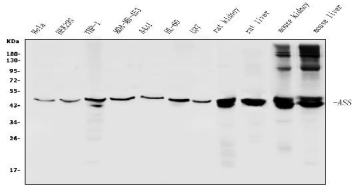


Figure 1. Western blot analysis of ASS1 using anti-ASS1 antibody (A02212-1).

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 50ug of sample under reducing conditions.

Lane 1: human HELA whole cell lysates,
Lane 2: human HEK293 whole cell lysates,
Lane 3: human THP-1 whole cell lysates,
Lane 4: human MDA-MB-453 whole cell lysates,
Lane 5: human A431 whole cell lysates,
Lane 6: human HL-60 whole cell lysates,
Lane 7: human U87 whole cell lysates,
Lane 8: rat kidney tissue lysates,
Lane 9: rat liver tissue lysates,
Lane 10: mouse kidney tissue lysates,
Lane 11: mouse liver 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-ASS1 antigen affinity purified polyclonal antibody (Catalog # A02212-1) 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 ASS1 at approximately 47KD. The expected band size for ASS1 is at 47KD.

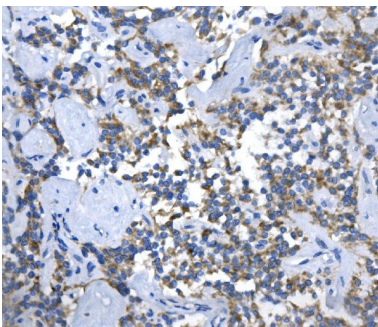
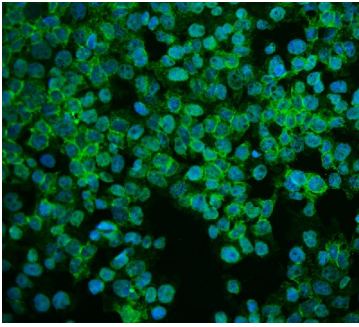


Figure 2. IHC analysis of ASS1 using anti-ASS1 antibody (A02212-1).

ASS1 was detected in paraffin-embedded section of human Pancreatic Cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ASS1 Antibody (A02212-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 3. IF analysis of ASS1 using anti-ASS1 antibody (A02212-1).

ASS1 was detected in immunocytochemical section of HEPG2 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 2ug/mL rabbit anti-ASS1 Antibody (A02212-1) overnight at 4°C. DyLight®488 conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100



dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

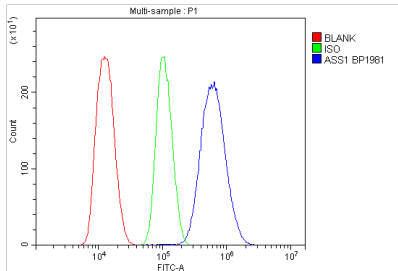


Figure 4. Flow Cytometry analysis of THP-1 cells using anti-ASS1 antibody (A02212-1).

Overlay histogram showing THP-1 cells stained with A02212-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ASS1 Antibody (A02212-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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