BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-Aspartate Aminotransferase/GOT1 Antibody Picoband®

Catalog Number: A04085-3

About GOT1

Aspartate aminotransferase, cytoplasmic is an enzyme that in humans is encoded by the GOT1 gene. Glutamic-oxaloacetic transaminase is a pyridoxal phosphate-dependent enzyme which exists in cytoplasmic and mitochondrial forms, GOT1 and GOT2, respectively. GOT plays a role in amino acid metabolism and the urea and tricarboxylic acid cycles. The two enzymes are homodimeric and show close homology.

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Overview

Product Name	Anti-Aspartate Aminotransferase/GOT1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Aspartate Aminotransferase/GOT1 Antibody Picoband® catalog # A04085-3. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB 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, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4.
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	P17174

Technical Details

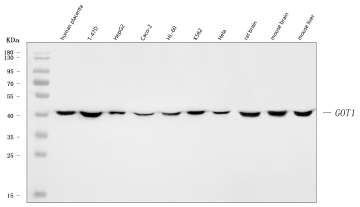
Immunogen	E.coli-derived human Aspartate Aminotransferase/GOT1 recombinant protein (Position: S5-Q413).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.

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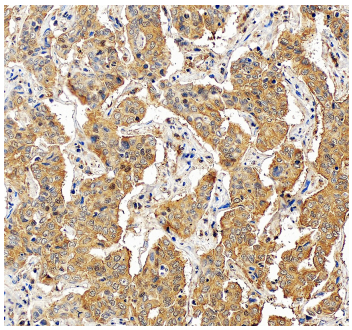
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.25ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/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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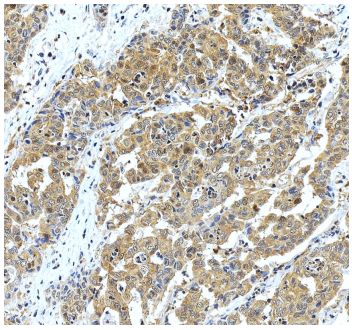
Anti-Aspartate Aminotransferase/GOT1 Antibody Picoband® (A04085-3) Images



Western blot analysis of Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). 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 30ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: human T-47D whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human Caco-2 whole cell lysates, Lane 5: human HL-60 whole cell lysates, Lane 6: human K562 whole cell lysates, Lane 7: human Hela whole cell lysates, Lane 8: rat brain tissue lysates, Lane 9: mouse brain tissue lysates, Lane 10: 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-Aspartate Aminotransferase/GOT1 antigen affinity purified polyclonal antibody (Catalog # A04085-3) 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 Aspartate Aminotransferase/GOT1 at approximately 41KD. The expected band size for Aspartate Aminotransferase/GOT1 is at 46KD.



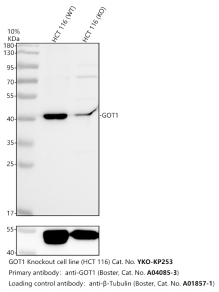
IHC analysis of Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Aspartate Aminotransferase/GOT1 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Aspartate Aminotransferase/GOT1 Antibody (A04085-3) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



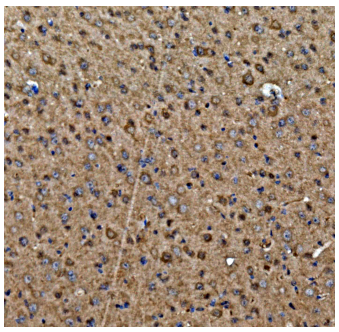
IHC analysis of GOT1 using anti-GOT1 antibody (A04085-3). GOT1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GOT1 Antibody (A04085-3) 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

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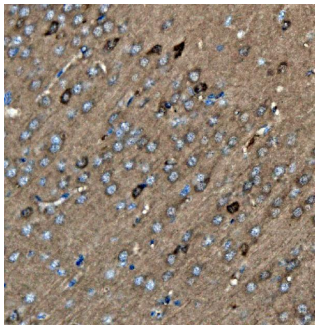
DAB as the chromogen.



Western blot analysis of GOT1 using anti-GOT1 antibody (A04085-3). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HCT116- WT whole cell lysates, Lane 2: human HCT116-GOT1 KO whole cell 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-GOT1 antigen affinity purified polyclonal antibody (A04085-3) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for GOT1 at approximately 41 kDa. The expected band size for GOT1 is at 46 kDa.



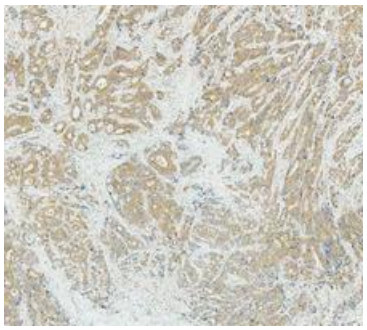
IHC analysis of Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Aspartate Aminotransferase/GOT1 was detected in paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Aspartate Aminotransferase/GOT1 Antibody (A04085-3) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



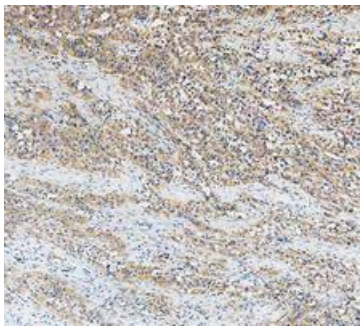
IHC analysis of Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Aspartate Aminotransferase/GOT1 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Aspartate Aminotransferase/GOT1 Antibody (A04085-3) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IHC analysis of Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Aspartate Aminotransferase/GOT1 was detected in a paraffin-embedded section of human stomach cancer tissue. Heat mediated antigen retrieval was performed in EDTA

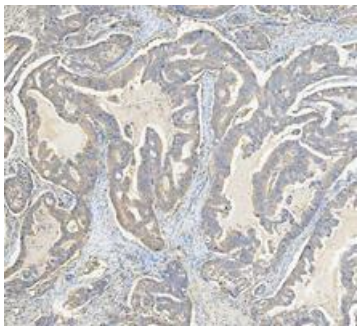
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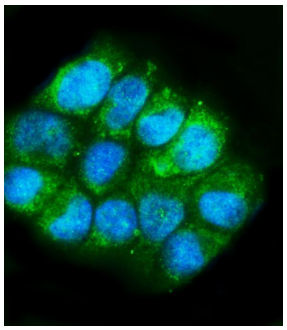
buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-Aspartate Aminotransferase/GOT1 Antibody (A04085-3) for 30 minutes at 37°C. HRP-AffiniPure Goat Anti-Rabbit IgG was used as secondary antibody 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 Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Aspartate Aminotransferase/GOT1 was detected in a paraffin-embedded section of human bladder 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 1 ug/ml rabbit anti-Aspartate Aminotransferase/GOT1 Antibody (A04085-3) for 30 minutes at 37°C. HRP-AffiniPure 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.

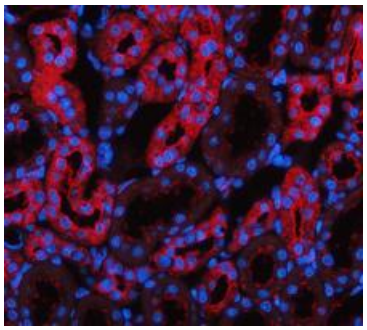


IHC analysis of Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Aspartate Aminotransferase/GOT1 was detected in a paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-Aspartate Aminotransferase/GOT1 Antibody (A04085-3) for 30 minutes at 37°C. HRP-AffiniPure 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.

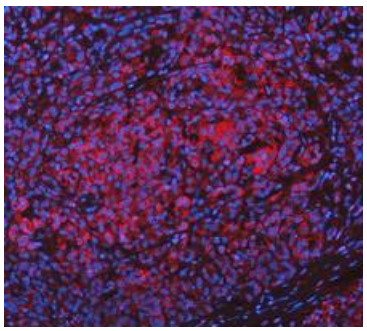


IF analysis of Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Aspartate Aminotransferase/GOT1 was detected in immunocytochemical section of T-47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-Aspartate Aminotransferase/GOT1 Antibody (A04085-3) 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.

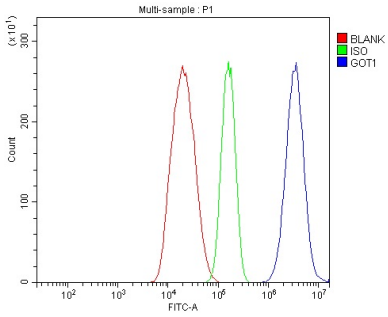
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IF analysis of Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Aspartate Aminotransferase/GOT1 was detected in a paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed 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 5 ug/mL rabbit anti-Aspartate Aminotransferase/GOT1 Antibody (A04085-3) overnight at 4°C. DyLight 594 Conjugated AffiniPure Goat Anti-rabbit IgG(H+L) (BA1142) 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.



IF analysis of Aspartate Aminotransferase/GOT1 using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Aspartate Aminotransferase/GOT1 was detected in a paraffin-embedded section of human pancreas 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 5 ug/mL rabbit anti-Aspartate Aminotransferase/GOT1 Antibody (A04085-3) overnight at 4°C. DyLight 594 Conjugated AffiniPure Goat Anti-rabbit IgG(H+L) (BA1142) 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.



Flow Cytometry analysis of HepG2 cells using anti-Aspartate Aminotransferase/GOT1 antibody (A04085-3). Overlay histogram showing HepG2 cells stained with A04085-3 (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-Aspartate Aminotransferase/GOT1 Antibody (A04085-3, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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