

Anti-Cystathionase/CTH Antibody Picoband®

Catalog Number: PA1556

About CTH

Cystathionine gamma-lyase (or cystathionase) is an enzyme which breaks down cystathionine into cysteine and alpha-ketobutyrate. The International Radiation Hybrid Mapping Consortium mapped the CTH gene to chromosome 1. The CTH gene had earlier been assigned to chromosome 16 by study of somatic cell hybrids. It is demonstrated that hydrogen sulfide (H₂S) is physiologically generated by CTH.

Overview

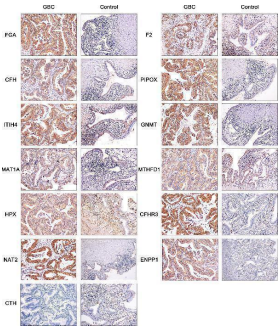
Product Name	Anti-Cystathionase/CTH Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Cystathionase/CTH Antibody catalog # PA1556. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium 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	Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
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	P32929

Technical Details

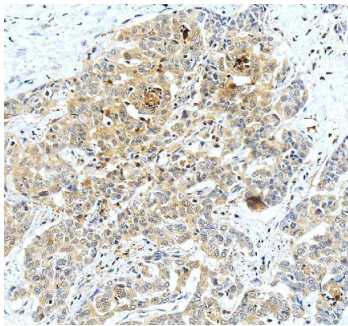
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Cystathionase, different from the related mouse and rat sequences by two amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for 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	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human

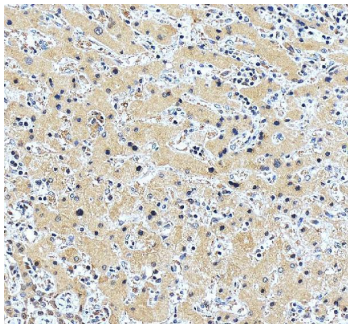
Anti-Cystathionase/CTH Antibody Picoband® (PA1556) Images



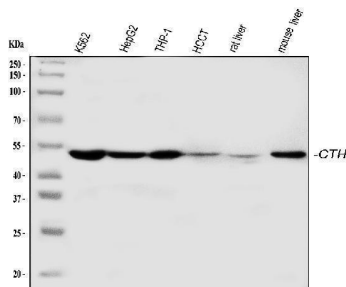
Immunohistochemistry of FGA, F2, CFH, PIPOX, ITIH4, GNMT, MAT1A, MTHFD1, HPX, CTH, CFHR3, ENNP1, and NAT2 in clinical GBC and control specimens. Index in PubMed under a CC BY license. PMID: 33718182



IHC analysis of Gamma Cystathionase/CTH using anti-Gamma Cystathionase/CTH antibody (PA1556). Gamma Cystathionase/CTH 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-Gamma Cystathionase/CTH Antibody (PA1556) 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.

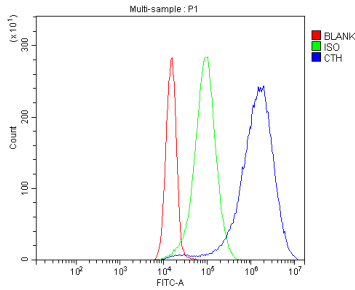


IHC analysis of Gamma Cystathionase/CTH using anti-Gamma Cystathionase/CTH antibody (PA1556). Gamma Cystathionase/CTH was detected in a paraffin-embedded section of human liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Gamma Cystathionase/CTH Antibody (PA1556) 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.

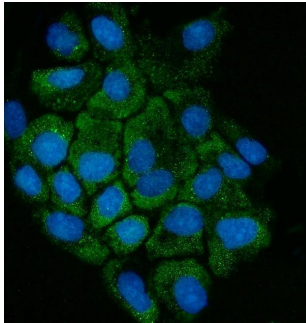


Western blot analysis of CTH using anti-CTH antibody (PA1556). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human THP-1 whole cell lysates, Lane 4: human HCCT tissue lysates, Lane 5: rat liver tissue lysates, Lane 6: 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-CTH antigen affinity purified polyclonal

antibody (Catalog # PA1556) 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 CTH at approximately 45 kDa. The expected band size for CTH is at 45 kDa.



Flow Cytometry analysis of JK cells using anti-CTH antibody (PA1556). Overlay histogram showing JK cells stained with PA1556 (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-CTH Antibody (PA1556, 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.



IF analysis of CTH using anti-CTH antibody (PA1556). CTH was detected in an immunocytochemical section of A431 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 5 ug/mL rabbit anti-CTH Antibody (PA1556) 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.

5 Publications Citing This Product

1. PubMed ID: 26378818, Caffeic Acid Phenethyl Ester inhibit Hepatic Fibrosis by Nitric Oxide Synthase and Cystathionine Gamma-Lyase in Rats
2. PubMed ID: 29393353, Hydrogen sulfide attenuates myocardial fibrosis in diabetic rats through the JAK/STAT signaling pathway
3. PubMed ID: 26668593, Endogenous carbon monoxide downregulates hepatic cystathionine-?-lyase in rats with liver cirrhosis

Visit bosterbio.com/anti-cystathionase-antibody-pa1556-boster.html to see all 5 publications.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-Cystathionase/CTH Antibody

For Research Use Only. Not for use in diagnostic procedures.