

Anti-beta glucuronidase/GUSB Antibody Picoband™

Catalog Number: A02234-1

About GUSB

Beta-glucuronidases are members of the glycosidase family of enzymes that catalyze breakdown of complex carbohydrates. This gene encodes a hydrolase that degrades glycosaminoglycans, including heparan sulfate, dermatan sulfate, and chondroitin-4,6-sulfate. The enzyme forms a homotetramer that is localized to the lysosome. Mutations in this gene result in mucopolysaccharidosis type VII. Alternative splicing results in multiple transcript variants. There are many pseudogenes of this locus in the human genome.

Overview

Product Name	Anti-beta glucuronidase/GUSB Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-beta glucuronidase/GUSB Antibody Picoband™ catalog # A02234-1. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, IF, ICC, 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	P08236

Technical Details

Immunogen	E.coli-derived human beta glucuronidase/GUSB recombinant protein (Position: Q416-T651).
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 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

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, Human

Immunocytochemistry/Immunofluorescence, 2ug/ml, Human

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

Direct ELISA, 0.1-0.5ug/ml, Human

Anti-beta glucuronidase/GUSB Antibody Picoband™ (A02234-1) Images

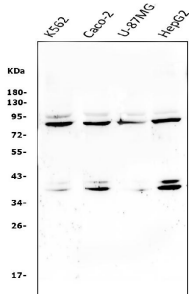


Figure 1. Western blot analysis of GUSB using anti-GUSB antibody (A02234-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human K562 whole cell lysates,
Lane 2: human Caco-2 whole cell lysates,
Lane 3: human U-87MG whole cell lysates,
Lane 4: human HepG2 whole cell 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-GUSB antigen affinity purified polyclonal antibody (Catalog # A02234-2) 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 GUSB at approximately 82KD. The expected band size for GUSB is at 75KD.

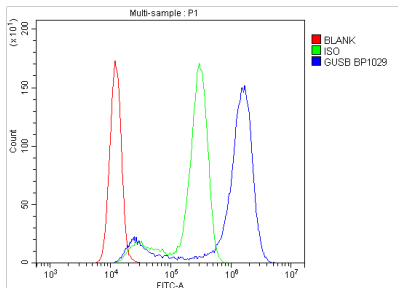


Figure 2. Flow Cytometry analysis of A431 cells using anti-GUSB antibody (A02234-1). Overlay histogram showing A431 cells stained with A02234-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GUSB Antibody (A02234-1, 1ug/1x10⁶ cells) for 30 min at 20°C. 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.

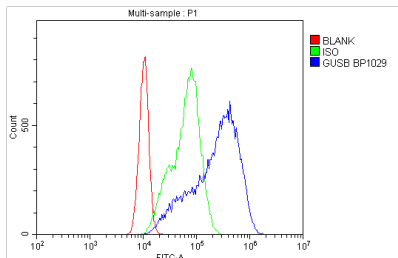
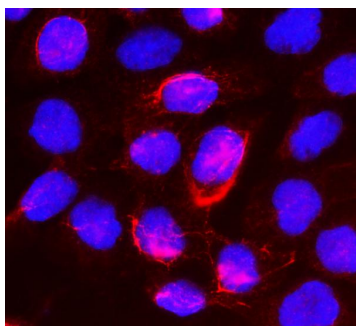


Figure 3. Flow Cytometry analysis of CACO-2 cells using anti-GUSB antibody (A02234-1). Overlay histogram showing CACO-2 cells stained with A02234-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GUSB Antibody (A02234-1, 1ug/1x10⁶ cells) for 30 min 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.

Figure 4. IF analysis of GUSB using anti-GUSB antibody (A02234-1).



GUSB was detected in 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 2ug/mL rabbit anti-GUSB Antibody (A02234-1) overnight at 4°C. DyLight®550 Conjugated Goat Anti-Rabbit IgG (BA1135) 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.

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-beta glucuronidase/GUSB Antibody [™]