BOSTER
antibody and ELISA experts

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Anti-GLB1/Beta-galactosidase Antibody Picoband™

Catalog Number: A01829-2

About GLB1

Galactosidase, beta 1, also known as GLB1, is a protein which in humans is encoded by the GLB1 gene. I t is mapped to 3p22.3. This gene encodes a member of the glycosyl hydrolase 35 family of proteins. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature lysosomal enzyme. This enzyme catalyzes the hydrolysis of a terminal beta-linked galactose residue from ganglioside substrates and other glycoconjugates. Mutations in this gene may result in GM1-gangliosidosis and Morquio B syndrome.

Overview

Product Name	Anti-GLB1/Beta-galactosidase Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-GLB1/Beta-galactosidase Antibody Picoband™ catalog # A01829-2. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg 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	P16278

Technical Details

Immunogen	E.coli-derived human GLB1/Beta-galactosidase recombinant protein (Position: Q46-K655).
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.

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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 Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human Direct ELISA, 0.1-0.5ug/ml, Human "

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Anti-GLB1/Beta-galactosidase Antibody Picoband™ (A01829-2) Images

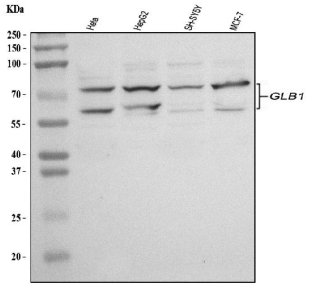

Figure 1. Western blot analysis of GLB1/Beta-galactosidase using anti-GLB1/Beta-galactosidase antibody (A01829-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human HepG2 whole cell lysates,
Lane 3: human SH-SY5Y whole cell lysates,
Lane 4: human MCF-7 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-GLB1/Beta-galactosidase antigen affinity purified polyclonal antibody (Catalog # A01829-2) 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 1:5000 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 GLB1/Beta-galactosidase at approximately 65-85 kDa. The expected band size for GLB1/Beta-galactosidase is at 73 kDa.

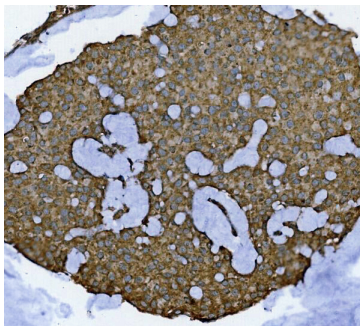

Figure 2. IHC analysis of GLB1/Beta-galactosidase using anti-GLB1/Beta-galactosidase antibody (A01829-2).
GLB1/Beta-galactosidase was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GLB1/Beta-galactosidase Antibody (A01829-2) 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.

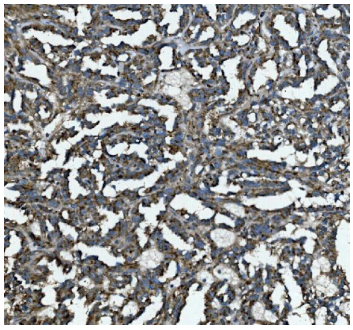

Figure 3. IHC analysis of GLB1/Beta-galactosidase using anti-GLB1/Beta-galactosidase antibody (A01829-2).
GLB1/Beta-galactosidase was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GLB1/Beta-galactosidase Antibody (A01829-2) 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

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Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

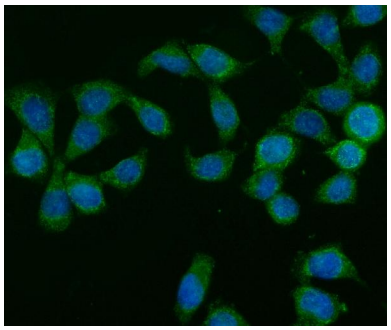

Figure 4. IF analysis of GLB1/Beta-galactosidase using anti-GLB1/Beta-galactosidase antibody (A01829-2). GLB1/Beta-galactosidase was detected in an immunocytochemical section of CACO-2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-GLB1/Beta-galactosidase Antibody (A01829-2) overnight at 4°C. DyLight488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

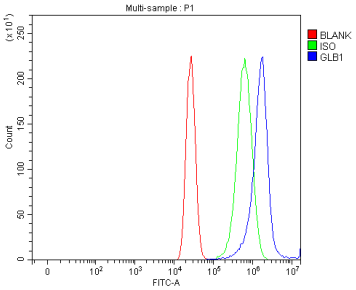

Figure 5. Flow Cytometry analysis of MCF-7 cells using anti-GLB1/Beta-galactosidase antibody (A01829-2). Overlay histogram showing MCF-7 cells stained with A01829-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GLB1/Beta-galactosidase Antibody (A01829-2, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.