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antibody and ELISA experts

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Anti-beta 2 Microglobulin/B2m Antibody Picoband™

Catalog Number: A00456-2

About B2m

Beta-2 microglobulin also known as B2M is a component of MHC class I molecules, which are present on all nucleated cells (excludes red blood cells). In humans, the beta-2-microglobulin protein is encoded by the B2M gene. The protein has a predominantly beta-pleated sheet structure that can form amyloid fibrils in some pathological conditions. The encoded antimicrobial protein displays antibacterial activity in amniotic fluid. A mutation in this gene has been shown to result in hypercatabolic hypoproteinemia.

Overview

Product Name	Anti-beta 2 Microglobulin/B2m Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-beta 2 Microglobulin/B2m Antibody Picoband™ catalog # A00456-2. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Mouse, Rat.
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	P01887

Technical Details

Immunogen	E.coli-derived rat beta 2 Microglobulin/B2m recombinant protein (Position: I21-M119).
Predicted Reactive Species	Chicken
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.

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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, 0.1-0.25ug/ml, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Mouse, Rat Flow Cytometry, 1-3ug/1x10^6 cells, Rat Direct ELISA, 0.1-0.5ug/ml, Rat

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Anti-beta 2 Microglobulin/B2m Antibody Picoband™ (A00456-2) Images

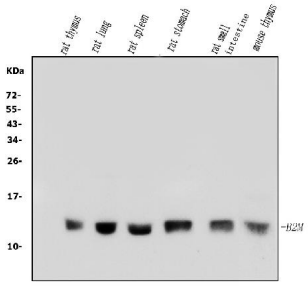

Figure 1. Western blot analysis of Beta 2 Microglobulin/B2m using anti-Beta 2 Microglobulin/B2m antibody (A00456-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat thymus tissue lysates,
Lane 2: rat lung tissue lysates,
Lane 3: rat spleen tissue lysates,
Lane 4: rat stomach tissue lysates,
Lane 5: rat small intestine tissue lysates,
Lane 6: mouse thymus 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-Beta 2 Microglobulin/B2m antigen affinity purified polyclonal antibody (Catalog # A00456-2) 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 Beta 2 Microglobulin/B2m at approximately 13KD. The expected band size for Beta 2 Microglobulin/B2m is at 13KD.

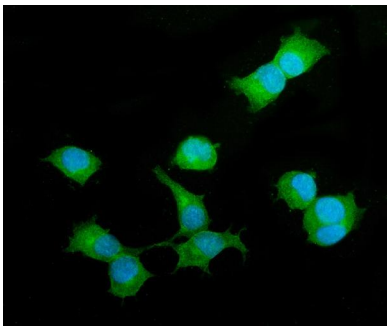

Figure 2. IF analysis of Beta 2 Microglobulin/B2m using anti-Beta 2 Microglobulin/B2m antibody (A00456-2).
Beta 2 Microglobulin/B2m was detected in immunocytochemical section of HEPA1-6 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-Beta 2 Microglobulin/B2m Antibody (A00456-2) 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.

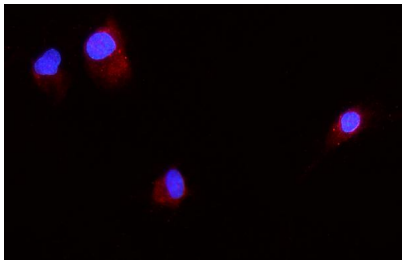

Figure 3. IF analysis of Beta 2 Microglobulin/B2m using anti-Beta 2 Microglobulin/B2m antibody (A00456-2).
Beta 2 Microglobulin/B2m was detected in immunocytochemical section of NRK cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-Beta 2 Microglobulin/B2m Antibody (A00456-2) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section

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was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

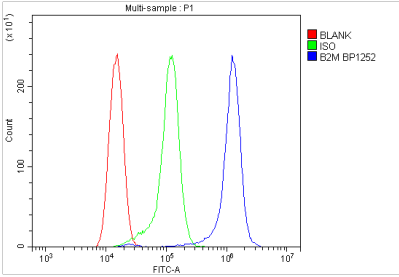

Figure 4. Flow Cytometry analysis of RH35 cells using anti-Beta 2 Microglobulin/B2m antibody (A00456-2). Overlay histogram showing RH35 cells stained with A00456-2 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Beta 2 Microglobulin/B2m Antibody (A00456-2, 1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.