

Anti-Lysozyme/LYZ Antibody Picoband™

Catalog Number: A01811-1

About LYZ

This gene encodes human lysozyme, whose natural substrate is the bacterial cell wall peptidoglycan (cleaving the beta[1-4]glycosidic linkages between N-acetylmuramic acid and N-acetylglucosamine). Lysozyme is one of the antimicrobial agents found in human milk, and is also present in spleen, lung, kidney, white blood cells, plasma, saliva, and tears. The protein has antibacterial activity against a number of bacterial species. Missense mutations in this gene have been identified in heritable renal amyloidosis.

Overview

Product Name	Anti-Lysozyme/LYZ Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Lysozyme/LYZ Antibody Picoband™ catalog # A01811-1. Tested in ELISA, WB, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal 1B9
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P61626

Technical Details

Immunogen	E.coli-derived human IMP4 recombinant protein (Position: L2-K236). Human IMP4 shares 97.9% amino acid (aa) sequence identity with both mouse and rat IMP4.
Predicted Reactive Species	Bovine, Canine, Chicken, Primate, Sheep, Xenopus, Zebrafish
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/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, 0.25-0.5 µg/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3 µg/1x10⁶ cells, Human ELISA, 0.1-0.5 µg/ml, Human

Anti-Lysozyme/LYZ Antibody Picoband™ (A01811-1) Images

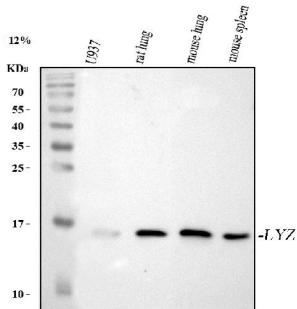


Figure 1. Western blot analysis of Lysozyme/LYZ using anti-Lysozyme/LYZ antibody (A01811-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human U937 whole cell lysates,

Lane 2: rat lung tissue lysates,

Lane 3: mouse lung tissue lysates,

Lane 4: mouse spleen 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-Lysozyme/LYZ antigen affinity purified polyclonal antibody (Catalog # A01811-1) 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 Lysozyme/LYZ at approximately 15-17 kDa. The expected band size for Lysozyme/LYZ is at 17 kDa.

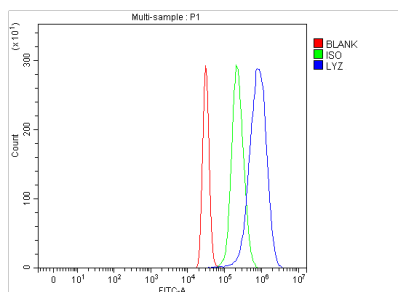


Figure 2. Flow Cytometry analysis of HepG2 cells using anti-Lysozyme/LYZ antibody (A01811-1).

Overlay histogram showing HepG2 cells stained with A01811-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Lysozyme/LYZ Antibody (A01811-1, 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 (Red line) was also used as a control.

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