

Anti-CLPP Antibody Picoband®

Catalog Number: A01117-3

About CLPP

ATP-dependent Clp protease proteolytic subunit (ClpP) is an enzyme that in humans is encoded by the CLPP gene. It is mapped to 19p13.3. The protein encoded by this gene belongs to the peptidase family S14 and hydrolyzes proteins into small peptides in the presence of ATP and magnesium. The protein is transported into mitochondrial matrix and is associated with the inner mitochondrial membrane.

Overview

Product Name	Anti-CLPP Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CLPP Antibody Picoband® catalog # A01117-3. Tested in ELISA, 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	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
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	Q16740

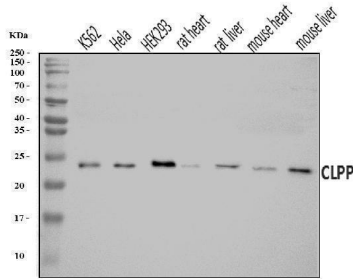
Technical Details

Immunogen	E.coli-derived human CLPP recombinant protein (Position: P57-E262).
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.

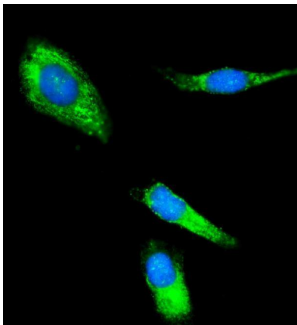
Suggested Dilutions

Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat
Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human
Flow Cytometry (Fixed), 1-3 ug/1x10⁶ cells, Human
ELISA, 0.1-0.5 ug/ml, -

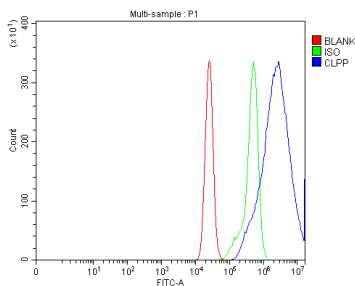
Anti-CLPP Antibody Picoband® (A01117-3) Images



Western blot analysis of CLPP using anti-CLPP antibody (A01117-3). 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 Hela whole cell lysates, Lane 3: human HEK293 whole cell lysates, Lane 4: rat heart tissue lysates, Lane 5: rat liver tissue lysates, Lane 6: mouse heart tissue lysates, Lane 7: 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-CLPP antigen affinity purified polyclonal antibody (Catalog # A01117-3) 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 CLPP at approximately 25 kDa. The expected band size for CLPP is at 25 kDa.



IF analysis of CLPP using anti-CLPP antibody (A01117-3). CLPP was detected in an immunocytochemical section of PC-3 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-CLPP Antibody (A01117-3) 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.



Flow Cytometry analysis of CACO-2 cells using anti-CLPP antibody (A01117-3). Overlay histogram showing CACO-2 cells stained with A01117-3 (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-CLPP Antibody (A01117-3, 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.

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Anti-CLPP Antibody

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