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antibody and ELISA experts

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Anti-Cpn10/HSPE1 Antibody

Catalog Number: PA1790

About HSPE1

HSPE1 (heat shock 10kDa protein 1 (chaperonin 10)), also called CPN10, GROES, CHAPERONIN 10 HOMOLOG, cpn10 HOMOLOG or HSP10, is a protein that in humans is encoded by the HSPE1 gene. GroES is a heptameric ring of identical 10.4-kD subunits that binds to each end of GroEL to form a symmetric, functional heterodimer. The HSP10 gene consists of 4 exons. The HSPE1 gene is mapped to 2q33.1. The transcriptional activity of the promoter fragment in the HSP60 direction is approximately twice that in the HSP10 direction under normal growth conditions; upon heat shock, promoter activity in either direction increased by a factor of approximately 12. Mutational drifts performed in vitro with 4 different enzymes indicated the GroES overexpression doubled the number of accumulating mutations, and promoted the folding of enzyme variants carrying mutations in the protein core and/or mutations with higher destabilizing effects.

Overview

Product Name	Anti-Cpn10/HSPE1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Cpn10/HSPE1 Antibody catalog # PA1790. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 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	P61604

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Cpn10, different from the related rat and mouse sequences by one amino acid.
Predicted Reactive Species	Bovine
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

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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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Immunocytochemistry , 0.5-1ug/ml, Human Immunofluorescence, 2ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human

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Anti-Cpn10/HSPE1 Antibody (PA1790) Images

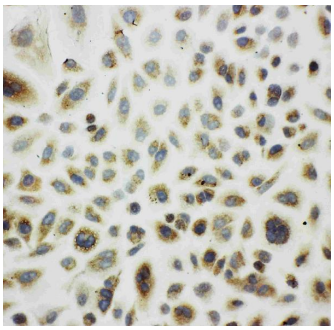

Figure 1. IHC analysis of Cpn10 using anti-Cpn10 antibody (PA1790).
Cpn10 was detected in immunocytochemical section of A549 Cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 1ug/ml rabbit anti-Cpn10 Antibody (PA1790) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

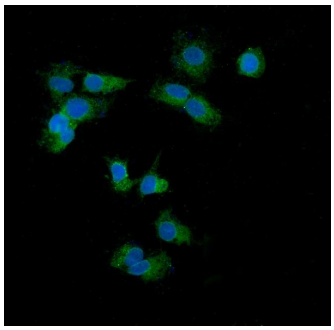

Figure 10. IF analysis of Cpn10 using anti-Cpn10 antibody (PA1790).
Cpn10 was detected in immunocytochemical section of HepG2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-Cpn10 Antibody (PA1790) 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.

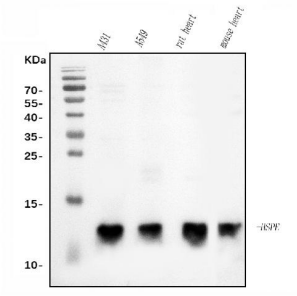

Figure 2. Western blot analysis of Cpn10 using anti-Cpn10 antibody (PA1790).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions.
Lane 1: human A431 whole cell lysates,
Lane 2: human A549 whole cell lysates,
Lane 3: rat heart tissue lysates,
Lane 4: mouse heart 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-Cpn10 antigen affinity purified polyclonal antibody (Catalog # PA1790) 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 Cpn10 at approximately 11KD. The expected band size for Cpn10 is at 11KD.

Figure 3. IHC analysis of Cpn10 using anti-Cpn10 antibody (PA1790).

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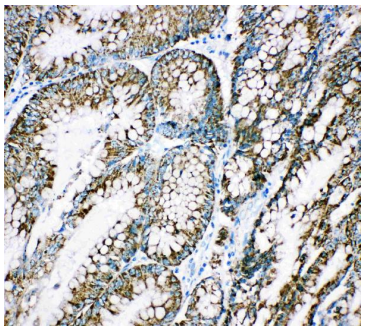

Cpn10 was detected in paraffin-embedded section of Human Intestinal Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Cpn10 Antibody (PA1790) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

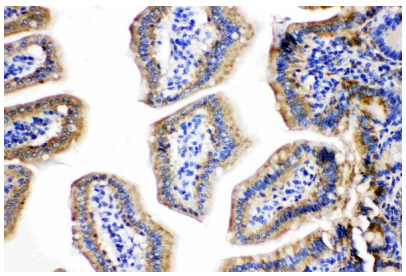

Figure 4. IHC analysis of Cpn10 using anti-Cpn10 antibody (PA1790).
Cpn10 was detected in paraffin-embedded section of Mouse Intestine Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Cpn10 Antibody (PA1790) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

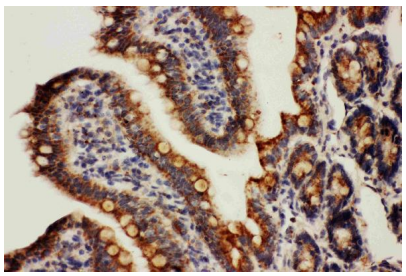

Figure 5. IHC analysis of Cpn10 using anti-Cpn10 antibody (PA1790).
Cpn10 was detected in paraffin-embedded section of Rat Intestine Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Cpn10 Antibody (PA1790) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

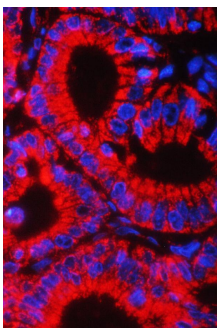

Figure 6. IF analysis of Cpn10 using anti-Cpn10 antibody (PA1790).
Cpn10 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-Cpn10 Antibody (PA1790) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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 7. IHC analysis of Cpn10 using anti-Cpn10 antibody (PA1790).
Cpn10 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was

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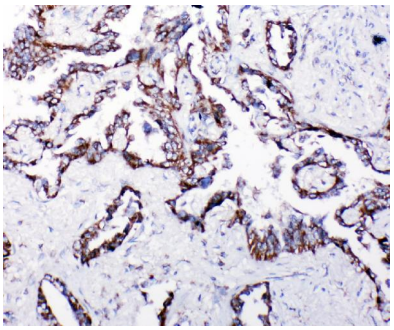

performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Cpn10 Antibody (PA1790) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

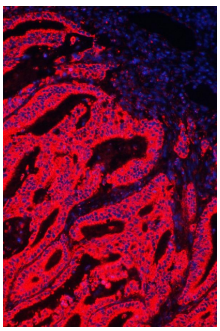

Figure 8. IF analysis of Cpn10 using anti-Cpn10 antibody (PA1790).
Cpn10 was detected in paraffin-embedded section of human intestine cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/mL rabbit anti-Cpn10 Antibody (PA1790) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight®594 Conjugated Avidin (BA1142). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

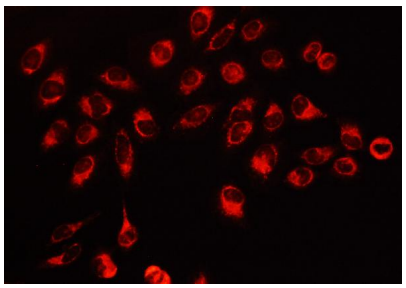

Figure 9. IF analysis of Cpn10 using anti-Cpn10 antibody (PA1790).
Cpn10 was detected in immunocytochemical section of Hela cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-Cpn10 Antibody (PA1790) 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 was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

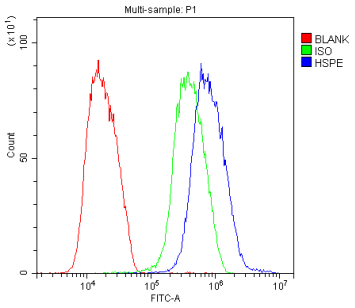

Figure 11. Flow Cytometry analysis of HepG2 cells using anti-Cpn10 antibody (PA1790).
Overlay histogram showing HepG2 cells stained with PA1790 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Cpn10 Antibody (PA1790, 1ug/1x10^6 cells) for 30 min at 20°C. 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 (Red line) was also used as a control.

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reviews help your fellow scientists make the right decisions. Thank you for your contribution.

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