

Anti-CPN1 Antibody Picoband®

Catalog Number: A05704-2

About CPN1

Carboxypeptidase N catalytic chain is an enzyme that in humans is encoded by the CPN1 gene. Carboxypeptidase N is a plasma metallo-protease that cleaves basic amino acids from the C terminal of peptides and proteins. The enzyme is important in the regulation of peptides like kinins and anaphylatoxins, and has also been known as kininase-1 and anaphylatoxin inactivator. This enzyme is a tetramer comprised of two identical regulatory subunits and two identical catalytic subunits; this gene encodes the catalytic subunit. Mutations in this gene can be associated with angioedema or chronic urticaria resulting from carboxypeptidase N deficiency.

Overview

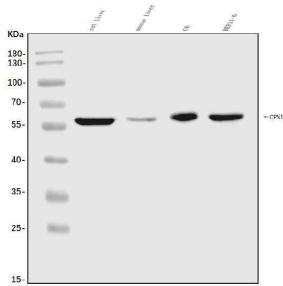
Product Name	Anti-CPN1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CPN1 Antibody Picoband® catalog # A05704-2. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
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	P15169

Technical Details

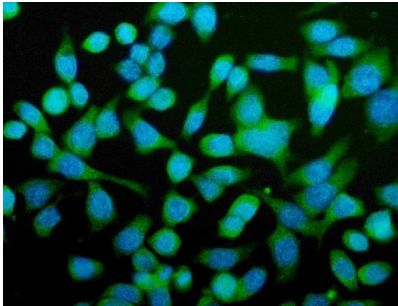
Immunogen	E.coli-derived human CPN1 recombinant protein (Position: D158-N208).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No 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, 0.25-0.5ug/ml, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5ug/ml, -

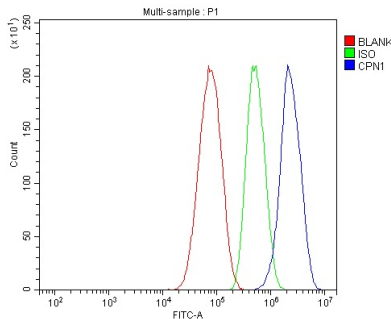
Anti-CPN1 Antibody Picoband® (A05704-2) Images



Western blot analysis of CPN1 using anti-CPN1 antibody (A05704-2). 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 30ug of sample under reducing conditions. Lane 1: rat liver tissue lysates, Lane 2: mouse liver tissue lysates, Lane 3: rat C6 whole cell lysates, Lane 4: mouse HEPA1-6 whole cell 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-CPN1 antigen affinity purified polyclonal antibody (Catalog # A05704-2) 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 CPN1 at approximately 52KD. The expected band size for CPN1 is at 52KD.



IF analysis of CPN1 using anti-CPN1 antibody (A05704-2). CPN1 was detected in 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 5ug/mL rabbit anti-CPN1 Antibody (A05704-2) 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.



Flow Cytometry analysis of HepG2 cells using anti-CPN1 antibody (A05704-2). Overlay histogram showing HepG2 cells stained with A05704-2 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-CPN1 Antibody (A05704-2, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/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-CPN1 Antibody

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