

## Anti-CHP2 Antibody Picoband®

Catalog Number: A08478-2

### About CHP2

This gene product is a small calcium-binding protein that regulates cell pH by controlling plasma membrane-type Na<sup>+</sup>/H<sup>+</sup> exchange activity. This protein shares sequence similarity with calcineurin B and can bind to and stimulate the protein phosphatase activity of calcineurin A (CnA) and functions in the calcineurin/NFAT (nuclear factor of activated T cells) signaling pathway. Another member of the CHP subfamily, Calcineurin B homologous protein 1, is located on Chromosome 15 and is an inhibitor of calcineurin activity and has a genetic phenotype associated with Parkinson's Disease (OMIM:606988). This gene was initially identified as a tumor-associated antigen and was previously referred to as Hepatocellular carcinoma-associated antigen 520.

### Overview

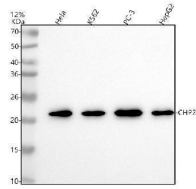
Product Name	Anti-CHP2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-CHP2 Antibody Picoband® catalog # A08478-2. Tested in WB, ICC/IF, Flow Cytometry, ELISA applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior 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 <sub>2</sub> HPO <sub>4</sub> .
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	O43745

### Technical Details

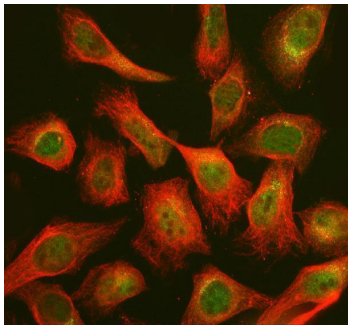
Immunogen	E.coli-derived human CHP2 recombinant protein (Position: M1-K196). Human CHP2 shares 81.6% amino acid (aa) sequence identity with both mouse and rat CHP2.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
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 Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 <sup>6</sup> cells, Human ELISA, 0.1-0.5 ug/ml

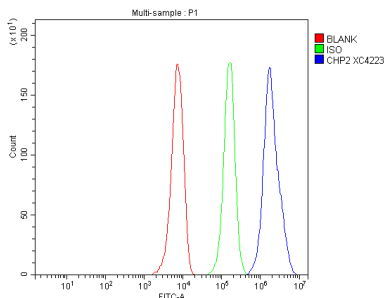
## Anti-CHP2 Antibody Picoband® (A08478-2) Images



Western blot analysis of CHP2 using anti-CHP2 antibody (A08478-2). 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 30 ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human PC-3 whole cell lysates, Lane 4: human HepG2 whole cell 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-CHP2 antigen affinity purified polyclonal antibody (A08478-2) 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 CHP2 at approximately 22 kDa. The expected band size for CHP2 is at 22 kDa.



IF analysis of CHP2 using anti-CHP2 antibody (A08478-2) and anti-Beta Tubulin antibody (M01857-3). CHP2 was detected in an 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 5 ug/mL rabbit anti-CHP2 Antibody (A08478-2) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and DyLight®594 Conjugated Goat Anti-Mouse IgG (BA1141) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of HepG2 cells using anti-CHP2 antibody (A08478-2). Overlay histogram showing HepG2 cells stained with A08478-2 (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-CHP2 Antibody (A08478-2, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) 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-CHP2 Antibody

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