BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Claudin 3/CLDN3 Antibody Picoband®

Catalog Number: A04393-4

About Cldn3

Claudin 3, also known as CLDN3, is a protein which in humans is encoded by the CLDN3 gene. This gene encodes a member of the claudin family. Claudins are integral membrane proteins and components of tight junction strands. Tight junction strands serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets, and also play critical roles in maintaining cell polarity and signal transductions. The protein encoded by this gene is a low-affinity receptor for clostridium perfringens enterotoxin (CPE) produced by the bacterium Clostridium perfringens, and the interaction with CPE results in increased membrane permeability by forming small pores in plasma membrane. This protein is highly overexpressed in uterine carcinosarcoma. This protein is also predominantly present in brain endothelial cells, where it plays a specific role in the establishment and maintenance of blood brain barrier tight junction morphology.

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Overview

Product Name	Anti-Claudin 3/CLDN3 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Claudin 3/CLDN3 Antibody Picoband® catalog # A04393-4. Tested in IF, ICC, WB applications. This antibody reacts with 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	IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg 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	Q9Z0G9

Technical Details

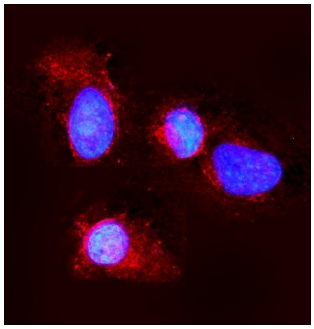
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Claudin 3/CLDN3,

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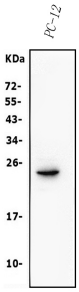
	which shares 73.3% and 94.1% amino acid (aa) sequence identity with human and rat Claudin 3/CLDN3, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) 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, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Mouse

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Anti-Claudin 3/CLDN3 Antibody Picoband® (A04393-4) Images



IF analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (A04393-4). Claudin 3/CLDN3 was detected in immunocytochemical section of NIH/3T3 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-Claudin 3/CLDN3 Antibody (A04393-4) 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.



Western blot analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (A04393-4). 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 50ug of sample under reducing conditions. Lane 1: rat PC-12 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-Claudin 3/CLDN3 antigen affinity purified polyclonal antibody (Catalog # A04393-4) 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 Claudin 3/CLDN3 at approximately 23KD. The expected band size for Claudin 3/CLDN3 is at 23KD.

Anti-Claudin 3/CLDN3 Antibody

For Research Use Only. Not for use in diagnostic procedures.