BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Claudin 3/CLDN3 Antibody Picoband® (monoclonal, 4C7D2)

Catalog Number: M04393-2

About CLDN3

Claudin 3, also known as CLDN3, is a protein which in humans is encoded by the CLDN3 gene. Tight junctions represent one mode of cell-to-cell adhesion in epithelial or endothelial cell sheets, forming continuous seals around cells and serving as a physical barrier to prevent solutes and water from passing freely through the paracellular space. These junctions are comprised of sets of continuous networking strands in the outwardly facing cytoplasmic leaflet, with complementary grooves in the inwardly facing extracytoplasmic leaflet. The protein encoded by this intronless gene, a member of the claudin family, is an integral membrane protein and a component of tight junction strands. It is also a low-affinity receptor for Clostridium perfringens enterotoxin, and shares aa sequence similarity with a putative apoptosis-related protein found in rat.

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Overview

Product Name	Anti-Claudin 3/CLDN3 Antibody Picoband® (monoclonal, 4C7D2)
Reactive Species	Human
Description	Boster Bio Anti-Claudin 3/CLDN3 Antibody Picoband® (monoclonal, 4C7D2) catalog # M04393-2. Tested in IF, IHC, WB 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	IF, IHC, WB
Clonality	Monoclonal 4C7D2
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	Mouse
Uniprot ID	O15551

Technical Details

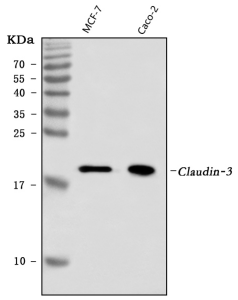
Immunogen	E.coli-derived human Claudin 3/CLDN3 recombinant protein (Position: A101-V220).

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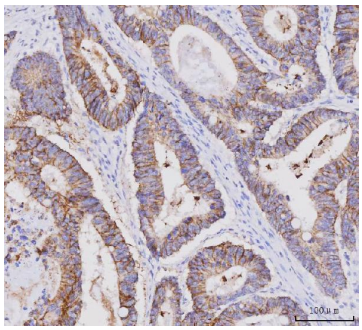
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2b
Form	Lyophilized
Concentration	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 Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunofluorescence, 5 ug/ml, Human

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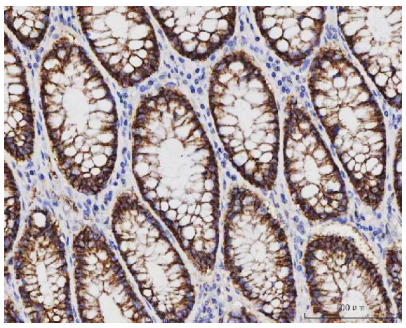
Anti-Claudin 3/CLDN3 Antibody Picoband® (monoclonal, 4C7D2) (M04393-2) Images



Western blot analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (M04393-2). 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 MCF-7 whole cell lysates, Lane 2: human CACO-2 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 mouse anti-Claudin 3/CLDN3 antigen affinity purified monoclonal antibody (Catalog # M04393-2) 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-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Claudin 3/CLDN3 at approximately 20 kDa. The expected band size for Claudin 3/CLDN3 is at 24 kDa.



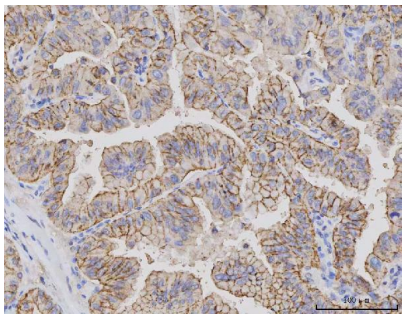
IHC analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (M04393-2). Claudin 3/CLDN3 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Claudin 3/CLDN3 Antibody (M04393-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.



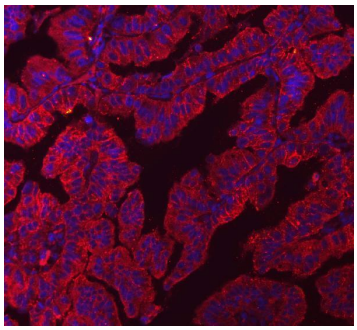
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IF analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (M04393-2). Claudin 3/CLDN3 was detected in a paraffin-embedded section of human lung adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL mouse anti-Claudin 3/CLDN3 Antibody (M04393-2) overnight at 4°C. Biotin conjugated goat anti-mouse IgG (BA1001) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight®550 Conjugated Avidin (BA1134). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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