10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-Claudin 3/CLDN3 Antibody Picoband™ (monoclonal, 4C7D2)

Catalog # ABO16596

Specification

Anti-Claudin 3/CLDN3 Antibody Picoband™ (monoclonal, 4C7D2) - Product Information

Application	**WB, IHC, IF**
Primary Accession	O15551
Host	**Mouse**
Isotype	**Mouse IgG2b**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-Claudin 3/CLDN3 Antibody Picoband™ (monoclonal, 4C7D2) . Tested in IF, IHC, WB applications. This antibody reacts with Human.

Reconstitution
Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Claudin 3/CLDN3 Antibody Picoband™ (monoclonal, 4C7D2) - Additional Information

Gene ID 1365

Other Names
Claudin-3, Clostridium perfringens enterotoxin receptor 2, CPE-R 2, CPE-receptor 2, Rat ventral prostate.1 protein homolog, hRVP1, CLDN3, C7orf1, CPETR2

Calculated MW
20 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human
 Immunofluorescence, 5 µg/ml, Human

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

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

Purification
Immunogen affinity purified.

Storage	**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.**

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Anti-Claudin 3/CLDN3 Antibody Picoband™ (monoclonal, 4C7D2) - Protein Information

Name CLDN3

Synonyms C7orf1, CPETR2

Function
Barrier-forming claudin. Plays a major role in tight junction-specific obliteration of the intercellular space, through calcium-independent cell-adhesion activity.

Cellular Location
Cell junction, tight junction. Cell membrane; Multi-pass membrane protein

Anti-Claudin 3/CLDN3 Antibody Picoband™ (monoclonal, 4C7D2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Claudin 3/CLDN3 Antibody Picoband™ (monoclonal, 4C7D2) - Images

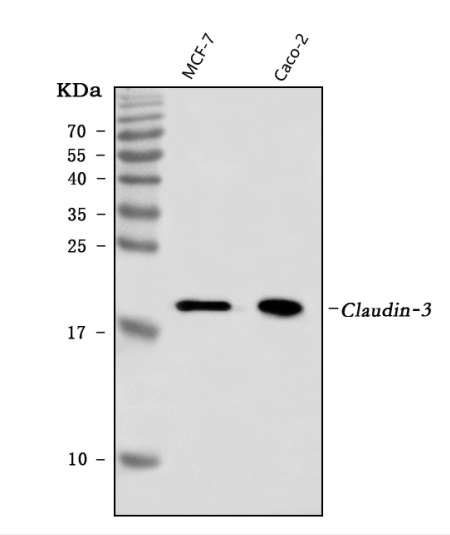

Figure 1. Western blot analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (M04393-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 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 µg/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.

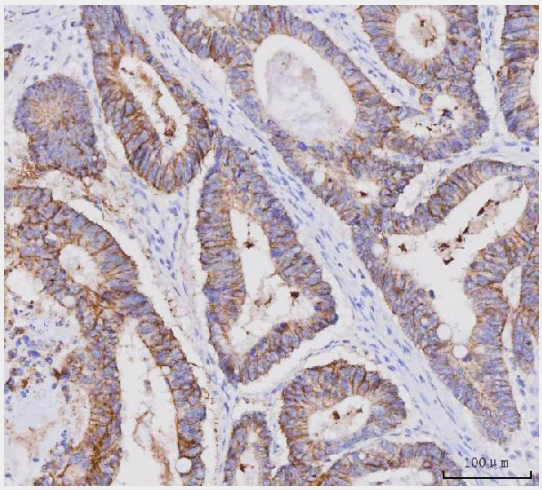

Figure 2. IHC analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (M04393-2). Claudin 3/CLDN3 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/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.

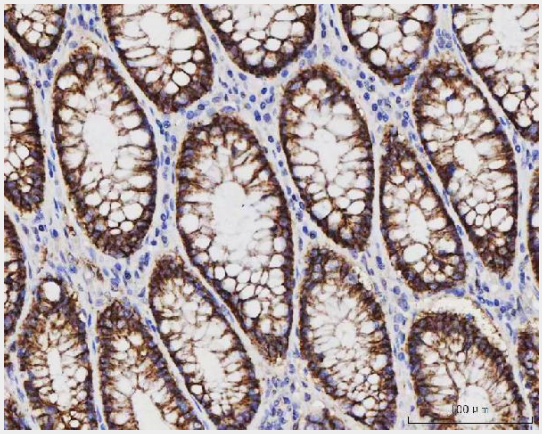

Figure 3. IHC analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (M04393-2). Claudin 3/CLDN3 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/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.

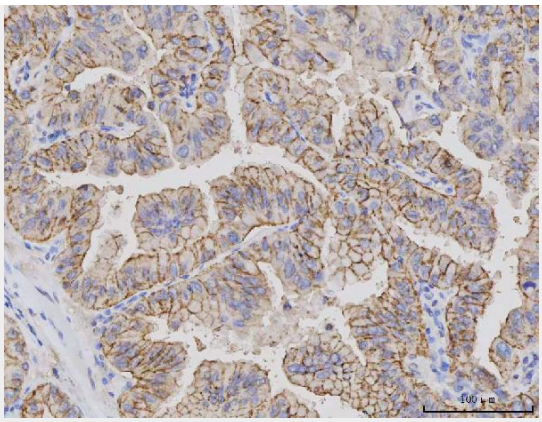

Figure 4. IHC analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (M04393-2). Claudin 3/CLDN3 was detected in a paraffin-embedded section of human lung adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/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.

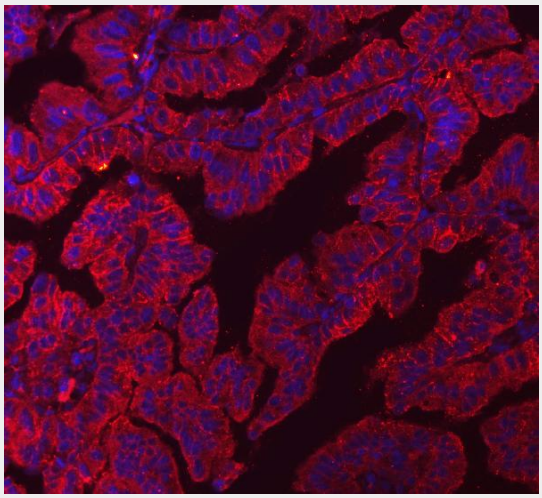

Figure 5. IF analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (M04393-2). Claudin 3/CLDN3 was detected in a paraffin-embedded section of human lung adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 µg/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.

Anti-Claudin 3/CLDN3 Antibody Picoband™ (monoclonal, 4C7D2) - Background

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.