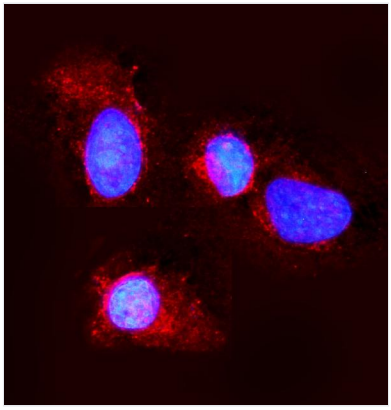
Claudin 3/CLDN3 (CLDN3) Antibody – Rabbit Polyclonal

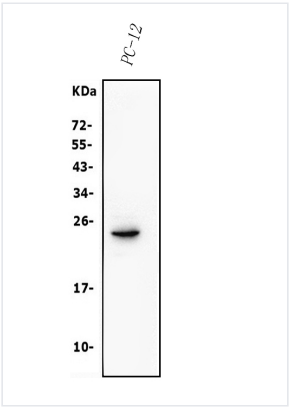
PRODUCT OVERVIEW

Product Name	Claudin 3/CLDN3, Polyclonal Antibody
Full Product Name	Anti-Claudin 3/CLDN3 Antibody
Product Gene Name	anti-Cldn3 antibody
Product Synonym Names	Cldn3; Cpetr2; Claudin-3; Clostridium perfringens enterotoxin receptor 2; CPE-R 2; CPE-receptor 2; claudin 3
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Mouse, Rat
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Purity/Purification	Immunogen affinity purified.
Specificity	Rabbit IgG polyclonal antibody for Claudin 3/CLDN3 detection.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.
Molecular Weight	21,227 Da
3D Structure	ModBase 3D Structure for Q9Z0G9
Immunogen	A synthetic peptide corresponding to a sequence of mouse Claudin 3/CLDN3 (RDKYAPTKILYSAPRST).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems||Lab recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (MBS176460) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (MBS176453) for ICC.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-Cldn3 antibody	Western Blot (WB), Immunocytochemistry (ICC), Immunofluorescence (IF)
Application Notes for anti-Cldn3 antibody	WB: 0.25-0.5ug/ml|Rat| ICC/IF: 5ug/ml|Mouse|
Related Product Information for anti-Cldn3 antibody	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.
Product References and Citations for anti-Cldn3 antibody	1. Coyne, C. B., Gambling, T. M., Boucher, R. C., Carson, J. L., Johnson, L. G. Role of claudin interactions in airway tight junctional permeability. Am. J. Physiol. Lung Cell. Molec. Physiol. 285: L1166-L1178, 2003. 2. Dube, E., Chan, P. T. K., Hermo, L., Cyr, D. G. Gene expression profiling and its relevance to the blood-epididymal barrier in the human epididymis. Biol. Reprod. 76: 1034-1044, 2007. 3. Furuse, M., Fujita, K., Hiiragi, T., Fujimoto, K., Tsukita, S. Claudin-1 and -2: novel integral membrane proteins localizing at tight junctions with no sequence similarity to occludin. J. Cell Biol. 141: 1539-1550, 1998

Other Notes	Small volumes of anti-Cldn3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Cldn3 purchase	MBS1753658 is an antibody targeting Cldn3. Also known as Anti-Claudin 3/CLDN3 Antibody. Reactive in Mouse, Rat. Host: Rabbit.



Immunofluorescence (IF) of anti-Cldn3 antibody
Figure 1. IF analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (MBS1753658).Claudin 3/CLDN3 was detected in immunocytochemical section of NIH/3T3 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5?g/mL rabbit anti-Claudin 3/CLDN3 Antibody (MBS1753658) overnight at 4 degree 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 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western Blot (WB) of anti-Cldn3 antibody
Figure 2. Western blot analysis of Claudin 3/CLDN3 using anti-Claudin 3/CLDN3 antibody (MBS1753658).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 # MBS1753658) at 0. 5 ?g/mL overnight at 4 degree 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 # MBS176460) 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Cldn3. It may not necessarily be applicable to this product.

NCBI GI #	6753438
NCBI GeneID	12739
NCBI Accession #	NP_034032.1
UniProt Primary Accession #	Q9Z0G9
UniProt Secondary Accession #	Q91X40
UniProt Related Accession #	Q9Z0G9
GenBank Nucleotide #	NM_009902.4
NCBI Official Full Name	claudin-3
NCBI Official Synonym Full Names	claudin 3
NCBI Official Symbol	Cldn3
NCBI Official Synonym Symbols	mRVP1; Cpetr2; AI182374
UniProt Protein Name	Claudin-3
UniProt Synonym Protein Names	Clostridium perfringens enterotoxin receptor 2; CPE-R 2; CPE-receptor 2
Protein Family	Claudin

UniProt Gene Name	Cldn3
UniProt Synonym Gene Names	Cpetr2; CPE-R 2; CPE-receptor 2
NCBI Protein Information	claudin-3
NCBI Summary for Cldn3	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. [provided by RefSeq, Aug 2012]
UniProt Comments for Cldn3	Plays a major role in tight junction-specific obliteration of the intercellular space, through calcium-independent cell-adhesion activity.
Research Articles on Cldn3	**1.** localization of Cldn3, Cldn7 and Cldn10 proteins in the different compartments of murine endometrium up to day 8.5 of pregnancy (dpc) as well as in human endometrium and first trimester decidua
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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