

Anti-Claudin 2 Antibody

Catalog # ABO12727

Product Information

Application	WB, IHC-P
Primary Accession	P57739
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Claudin-2(CLDN2) detection. Tested with WB, IHC-P in Human;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	9075
Other Names	Claudin-2, SP82, CLDN2
Calculated MW	24549
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat Western blot, 0.1-0.5 µg/ml, Rat, Human
Subcellular Localization	Cell junction, tight junction . Cell membrane ; Multi-pass membrane protein .
Source	Eukaryota
Protein Name	Claudin-2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human Claudin 2 recombinant protein (Position: A38-V230). Human Claudin 2 shares 92% amino acid (aa) sequence identity with mouse Claudin 2.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	CLDN2 {ECO:0000303 PubMed:31320686, ECO:0000312 HGNC:HGNC:2041}
Function	Forms paracellular channels: polymerizes in tight junction strands with cation- and water-selective channels through the strands, conveying epithelial permeability in a process known as paracellular tight junction permeability (PubMed: 20460438 , PubMed: 36008380). In intestinal epithelium, allows for sodium and water fluxes from the peritoneal side to the lumen of the intestine to regulate nutrient absorption and clear enteric pathogens as part of mucosal immune response (By similarity). In kidney, allows passive sodium and calcium reabsorption across proximal tubules from the lumen back to the bloodstream (By similarity). In the hepatobiliary tract, allows paracellular water and cation fluxes in the hepatic perivenous areas and biliary epithelium to generate bile flow and maintain osmotic gradients (By similarity).
Cellular Location	Cell junction, tight junction. Cell membrane {ECO:0000250 UniProtKB:O88552}; Multi-pass membrane protein

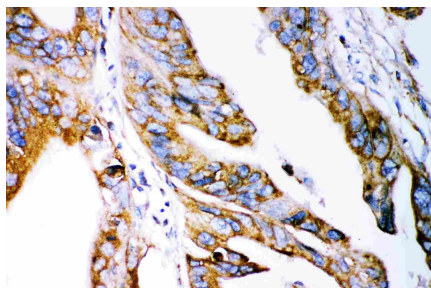
Background

Claudin-2 is a protein that in humans is encoded by the CLDN2 gene. By genomic sequence analysis, this gene is mapped to chromosome Xq22.3-q23. This gene product belongs to the claudin protein family whose members have been identified as major integral membrane proteins localized exclusively at tight junctions. Claudins are expressed in an organ-specific manner and regulate tissue-specific physiologic properties of tight junctions. By expression in a human intestinal epithelial cell line, it was determined that the intestine-specific homeodomain proteins CDX1 and CDX2 activated a reporter plasmid driven by the CLDN2 promoter.

Images



Anti- Claudin 2 antibody, ABO12727, Western blottingAll lanes: Anti Claudin 2 (ABO12727) at 0.5ug/mlLane 1: Rat Kidney Tissue Lysate at 50ugLane 2: Rat Liver Tissue Lysate at 50ugPredicted bind size: 25KDObserved bind size: 25KD



Anti- Claudin 2 antibody, ABO12727, IHC(P)IHC(P): Human Intestinal Cancer Tissue