

Code No. 18825

**Anti-Mouse  
Claudin-2 (C) Rabbit IgG Affinity Purify**Volume : 100 µg

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**Introduction** : The tight junction is identified as a belt-like region in which two lipid-apposing membranes lie close together (tight junction strands). Tight junction strands of the adjacent cells form tightly connected pairs. The proteins involved in the formation of tight junctions are divided into two categories: 1) integral membrane proteins, such as occludin, claudin and junctional adhesion molecule, JAM and 2) peripheral membrane proteins (cytoplasmic plaque proteins), MAGUK (membrane-associated guanylate kinase) homologue proteins, such as ZO-1, 2, 3, cingulin, symplekin, 19B1, and AF-6. In human, the claudin superfamily consists of at least 18 members, which are involved on paracellular transport as structural and functional components of tight junction. Claudins are directly associated with ZO-1, 2 and 3 and indirectly with AF-6 and cingulin.

It is known that Claudin-2 is distributed at liver or kidney.

**Antigen** : Synthetic peptide of the C terminal part of mouse Claudin-2 (SSPRSAQQPKAKSEFNS)

**Purification** : Purified with antigen peptide

**Form** : Lyophilized product from 1 % BSA in PBS containing 0.05% NaN<sub>3</sub>

**How to use** : 1.0 mL deionized water will be added to the product (the conc. comes up 100 µg /mL)

**Stability** : Lyophilized product, 5 years at 2 – 8 °C  
: Solution, 2 years at –20 °C

**Application** : This antibody can be used for several Immunohistochemical techniques such as immunofluorescent method with cytopreparations or frozen tissues. The optimal concentration is about 5 µg/mL, however, the concentration should be optimized by each laboratory.  
: This antibody can be used for western blotting in concentration of 2 µg /mL.

**Specificity** : Claudin-2 specific.  
Not cross-react with Claudin-1, -3, -4, -5, -6, -7 and -8.  
(This confirmed by western blotting using each transfectant.)

**Reference** : 1. Chiba H, Kojima T, Osanai M, Sawada N.: The significance of interferon-gamma-triggered internalization of tight-junction proteins in inflammatory bowel disease.: Sci STKE. 2006 Jan 3;2006(316):pe1.  
2. Fujita H, Sugimoto K, Inatomi S, Maeda T, Osanai M, Uchiyama Y, Yamamoto Y, Wada T, Kojima T, Yokozaki H, Yamashita T, Kato S, Sawada N, Chiba H. Tight junction proteins claudin-2 and -12 are critical for vitamin D-dependent Ca<sup>2+</sup> absorption between enterocytes. Mol Biol Cell. 2008 May;19(5):1912-21.

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Immuno-Biological Laboratories, Inc. Toll-Free: 888-523-1246  
8201 Central Ave NE, Suite P Email: info@IBL-America.com  
Minneapolis, MN 55432 Web: www.IBL-America.com