

Code No. 18875

**Anti-Mouse/Rat  
Claudin-7 (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-1, -2, -6, -7 and -15 are distributed at liver or kidney.

**Antigen** : Synthetic peptide of the C-terminal part of Mouse and Rat Claudin-7 (YRAPRSYPKSNSSKEY)

**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 immunocytochemistry and immunohistochemistry with frozen sections by several techniques such as immunofluorescent stain. The optimal concentration is 5 - 7 µg/mL, however, the concentration should be optimized by each laboratory.  
: This antibody can be used for western blotting in concentration about 1 µg /mL.

**Specificity** : Claudin-7 specific.  
Not cross-react with Claudin-1, -2, -3, -4, -5, -6, -8, -12 and -15.  
(confirmed by western blotting using each transfectant)

**Reference** : 1. Fujita H, Chiba H, Yokozaki H, Sakai N, Sugimoto K, Wada T, Kojima T, Yamashita T, Sawada N. Differential expression and subcellular localization of claudin-7, -8, -12, -13, and -15 along the mouse intestine.: J Histochem Cytochem. 2006 Aug ;54 (8) :933-44.  
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): 1912-1921.

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