ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Claudin 19 (CLDN19) Antibodies and Peptides

□ Cat. # CLDN191-A	Rabbit Anti-Mouse/Human CLDN19 IgG (aff pure)	**SIZE**: 100 ul
□ Cat. # CLDN191-P	Mouse/Human CLDN19 Control/blocking peptide	**SIZE**: 100 ug

Claudins are transmembrane proteins found at tight junctions that control the passage of ions and molecules across an epithelial sheet and the movement of proteins and lipids between apical and basolateral domains of epithelial cells. They form trafficking and signaling platforms involved in the regulation of growth, proliferation, and differentiation of cells; and they serve as a regulatory barrier ('gate') that separates fluid compartments of different compositions (e.g., in the kidney, intestine, and brain). Claudin-19 plays a role in magnesium transport. Claudin-19 is found in Chromosome 1 (Human) and Chromosome 4 (mouse). Alternative splicing results in 3 isoforms in Human Claudin-19 (isoform 1->224aa), (isoform 2--> 210-224: PVVKLPASAKGPLGV → YV), (isoform 3-> 131-224: LCTLTAVSWY...PASAKGPLGV→MNLAQPCSWA...GQGHWGIGW A).

Protein Function Plays a major role in tight junction-specific obliteration of the intercellular space, through calcium-independent cell-adhesion activity.
Subcellular Location Cell junction › tight junction. Cell membrane; Multi-pass membrane protein.
Protein name Claudin-19
Gene name CLDN191
Similarity Belongs to the claudin family.

Source of Antigen and Antibodies

Antigen	17-aa peptides of Mouse/Human Claudin 19 (224-aa) (CLDN191); (protein accession # Q8N6F1)**.** (**designated CLDN191-P or control peptide**) conjugated to KLH; Epitope location: N-terminal transmembrane.
Ab Host/type	Rabbit, polyclonal Aff pure IgG (**cat # CLDN191-A**) purified over the antigen column
2-ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC) conjugates also available
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG
□ 100 ug/100ul □ solution □ lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in water

Control/blocking peptide
□ 100 ug/100 ul □ solution □ lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in water

Storage

Short-term: unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°C..
Long-term: at –20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20°C or below.

Shipping: 4°C for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique).

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence: not tested. We recommend the use of affinity pure antibody at 2-20 ug/ml.

Specificity & Cross-reactivity

Mouse/Human CLDN1911-P peptide sequences are found to be 100% conserved in rat and human. The antibody does react with the isoforms 1, 2 (rat and mouse), 1,2 and 3 (human) of the proteins. Antibody reactivity has not been established between species. The CLDN191-P control peptides, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity.

General References: Naeem, M. (2011). American Journal of Nephrology 34 (3): 241–248. Konrad, M. (2006). The American Journal of Human Genetics 79 (5): 949–957. Luk, J. M. (2004). FEBS Lett. 578: 251-256.

**This product is for In vitro research use only.*

Related materials available from ADI

Antibodies:

ReadyBlot Kidney Protein Explorer-Study distribution of protein in various regions of the mouse/rat kidney using the pre-made protein blots; Western blot recycling kit-Use the same blot for WNK1-4.

CLDN191-A 130710VVP

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