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# CLAUDIN4 Antibody

Catalog # ASC11543

## Product Information

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| **Application** | WB, IF, E |
| **Primary Accession** | O14493 |
| **Other Accession** | NP_001296, 4502877 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 22077 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | CLAUDIN4 antibody can be used for detection of CLAUDIN4 by Western blot at 1 g/mL. For immunofluorescence start at 20 g/mL. |

## Additional Information

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| **Gene ID** | 1364 |
| **Other Names** | Claudin-4, Clostridium perfringens enterotoxin receptor, CPE-R, CPE-receptor, Williams-Beuren syndrome chromosomal region 8 protein, CLDN4, CPER, CPETR1, WBSCR8 |
| **Target/Specificity** | CLDN4; At least four isoforms of CLAUDIN4 are known to exist; CLAUDIN4 antibody will detect all four isoforms |
| **Reconstitution & Storage** | CLAUDIN4 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| **Precautions** | CLAUDIN4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | CLDN4 {ECO:0000303\|PubMed:35773259, ECO:0000312\|HGNC:HGNC:2046} |
| **Function** | Can associate with other claudins to regulate tight junction structural and functional strand dynamics (PubMed:35773259, PubMed:36008380). May coassemble with CLDN8 into tight junction strands containing anion-selective channels that convey paracellular chloride permeability in renal collecting ducts (By similarity) (PubMed:36008380). May integrate into CLDN3 strands to modulate localized tight junction barrier properties (PubMed:35773259, PubMed:36008380). May disrupt strand assembly of channel-forming CLDN2 and CLDN15 and inhibit cation conductance (PubMed:35773259, |

PubMed:36008380). Cannot form tight junction strands on its own (PubMed:35773259, PubMed:36008380).

**Cellular Location** Cell junction, tight junction. Cell membrane; Multi-pass membrane protein

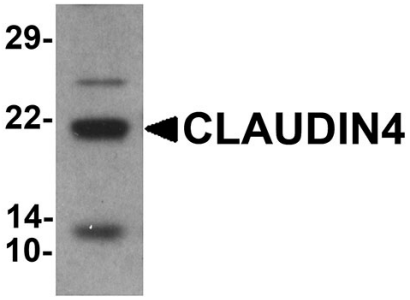
## Background

CLAUDIN4 Antibody: CLAUDIN4 is an integral membrane protein belonging to the claudin family, a family of cellular adhesion molecules that are components of tight junctions. CLAUDIN4 is a component of tight junction strands and may play a role in internal organ development and function during pre- and postnatal life. The CLAUDIN4 gene is deleted in Williams-Beuren syndrome, a neurodevelopmental disorder affecting multiple systems. CLAUDIN4 is frequently overexpressed in ovarian and other epithelial cancers.

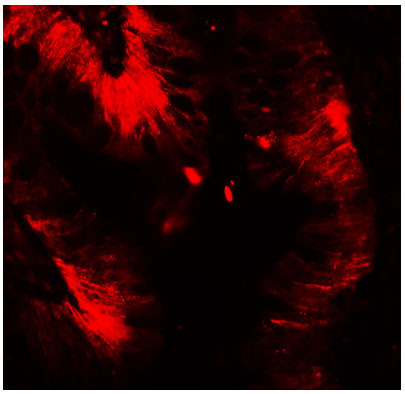
## References

Mitic LL, Unger VM, and Anderson JM. Expression, solubilization, and biochemical characterization of the tight junction transmembrane protein claudin-4. Protein Sci. 2003; 12:218-27.
Paperna T, Peoples R, Wang YK, et al. Genes for the CPE receptor (CPETR1) and the human homolog of RVP1 (CPETR2) are localized within the Williams-Beuren syndrome deletion. Genomics 1998; 54:453-9.
Morin PJ. Claudin proteins in human cancer: promising new targets for diagnosis and therapy. Cancer Res. 2005; 65:9603-6.

## Images




Western blot analysis of CLAUDIN4 in human colon tissue lysate with CLAUDIN4 antibody at 1 µg/ml



Immunofluorescence of CLAUDIN4 in human colon tissue with CLAUDIN4 antibody at 20 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.