

## Product datasheet for RC229728

### Claudin 2 (CLDN2) (NM\_001171092) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Claudin 2 (CLDN2) (NM_001171092) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Claudin 2
Synonyms:	OAZON
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC229728 representing NM_001171092 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCCGATCGCC

ATGGCCTCTCTTGGCCTCCAACCTGTGGGCTACATCCTAGGCCTTCTGGGGCTTTTGGGCACACTGGTTGCCATGCTGCTCCCAGCTGGAAAACAAGTTCTTATGTCGGTGCCAGCATTGTGACAGCAGTTGGCTTCTCAAGGGCCTCTGGATGGAATGTGCCACACAGCACAGGCATCACCCAGTGTGACATCTATAGCACCTTCTGGCCCTGCCCCTGACATCCAGGCTGCCAGGCCATGATGGTGACATCCAGTGAATCTCCTCCCTGGCCTGCATTATCTCTGTGGTGGGCATGAGATGCACAGTCTTCTGCCAGGAATCCCAGCCAAGACAGAGTGGCGGTAGCAGGTGGAGTCTTTTTCATCCTTGGAGGCCTCCTGGGATTCAATCCTGTTGCCGTGAATCTTCATGGGATCCTACGGGACTTCTACTCACCCTGGTGCCTGACAGCATGAAATTTGAGATTGGAGAGGCTCTTTACTTGGGCATTATTTCTTCCCTGTTCTCCCTGATAGCTGGAATCATCCTCTGCTTTTCTGCTCATCCAGAGAAATCGCTCCAACCTACTACGATGCCTACCAAGCCCAACCTTTGCCACAAGGAGCTCTCCAAGCCTGGTCAACCTCCAAAGTCAAGAGTGAGTTCAATTCCTACAGCCTGACAGGGTATGTG

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC229728 representing NM\_001171092  
 Red=Cloning site Green=Tags(s)

MASLGLQLVGYILGLLGTLVAMLLPSWKTSSVVGASIVTAVGFSGKGLWMECATHSTGITQCEDIYSTL  
 LGLPADIQAAQAMMVTSSAISSLACIISVVGMRICTVFCQESRAKDRVAVAGGVFFILGLLGFIPAVNWL  
 HGILRDFYSPLVPDSMKFEIGEALYLGIISLFSLIAGIILCFSCSSQRNRSNYYDAYQAQPLATRSPR  
 PGQPPKVKSEFNYSYSLTGYY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1447\\_a08.zip](https://cdn.origene.com/chromatograms/ja1447_a08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001171092

**ORF Size:** 690 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_001171092.1](#), [NP\\_001164563.1](#)

**RefSeq ORF:** 693 bp

**Locus ID:** 9075

**UniProt ID:** [P57739](#)

**Cytogenetics:** Xq22.3

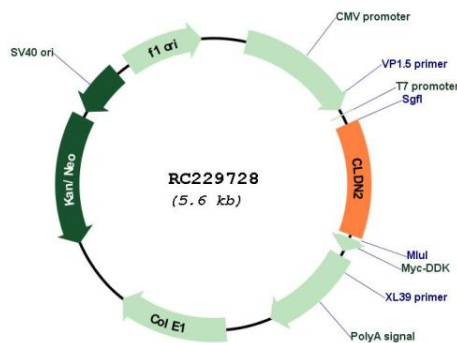
**Protein Families:** Transmembrane

**Protein Pathways:** Cell adhesion molecules (CAMs), Leukocyte transendothelial migration, Tight junction

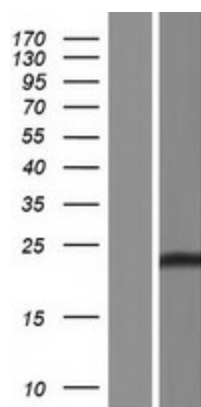
**MW:** 25 kDa

**Gene Summary:** 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. This protein is expressed in the intestine. Alternatively spliced transcript variants with different 5' untranslated region have been found for this gene.[provided by RefSeq, Jan 2010]

**Product images:**



Circular map for RC229728



Western blot validation of overexpression lysate (Cat# [LY432728]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC229728 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).