

Product datasheet for MR202768

Cldn2 (NM_016675) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Cldn2 (NM_016675) Mouse Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Cldn2 |
| Synonyms: | AL022813 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >MR202768 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCTCCCTTGGCGTCCAACCTGGTGGGCTACATCCTAGGCCTTTTGGGGCTGTTAGGCACATCCATTG
CCATGCTGCTTCCCAACTGGCGAACGAGTTCTATGTTGGTGCCAGCATTGTGACGGCGTTGGCTTTTC
CAAGGGCCTCTGGATGGAGTGTGCGACACAGCACAGGCATCACCCAGTGGGATATCTACAGTACCCTT
TTAGGACTTCTGCTGACATCCAGGCTGCCAGGCCATGATGGTGACGTCCAGTGAATGCCTCGCTGG
CTTGATTATCTCTGTGGTGGGCATGAGATGCACCGTGTCTGCCAGGATTCTCGAGCTAAGGACAGAGT
GGCTGTAGTGGTGGAGTCTTTTTCATCCTTGGTGGCATCCTGGGCTTTATCCCAGTTGCTTGGAACTCT
CATGGCATCCTTCGGGACTTCTACTCGCCGCTGGTTCCTGACAGCATGAAATTTGAGATTGGAGAGGCTC
TGTAAGTGGGCATCATCTCAGCCCTGTTTTCTTTGGTAGCCGGAGTCATCCTTTGCTTTTCTGCTCGCC
CCAGGGCAATCGTACCAACTACTATGATGGCTACCAGGCCAGCCTTTGCCACTAGGAGCTCTCCAAGA
TCTGCTCAACAGCCAAAGCCAAGAGTGAGTTCAACTCATACAGCCTGACTGGGTATGTG

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR202768 protein sequence
Red=Cloning site Green=Tags(s)

MASLGVQLVGYILGLLGLLGTSIAMLLPNWRTSSVYGASIVTAVGFSGKGLWMECATHSTGITQCIDIYSTL
 LGLPADIQAAQAMMVTSSAMSSLACIISVVGMRCTVFCQDSRAKDRVAVVGGVFFILGGILGFIPVAVNLL
 HGILRDFYSPLVPDSMKFEIGEALYLGIISALFSLVAGVILCFSCSPQGNRTNYYDGYQAQPLATRSSPR
 SAQQPKAKSEFNSYSLTGYY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_016675

ORF Size: 693 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_016675.4](#)

RefSeq Size: 3079 bp

RefSeq ORF: 693 bp

Locus ID: 12738

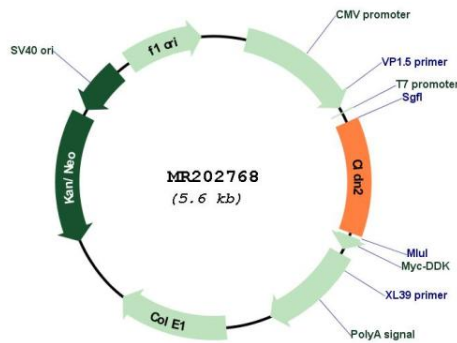
UniProt ID: [O88552](#)

Cytogenetics: X F1

MW: 24.5 kDa

Gene Summary: This gene encodes a member of the claudin family. Claudins are integral membrane proteins and components of tight junction strands. Tight junction strands serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets, and also play critical roles in maintaining cell polarity and signal transductions. The knockout mice lacking this gene display normal appearance, activity, growth and behavior, but are defective in the leaky and cation-selective paracellular permeability properties of renal proximal tubules. The proteins encoded by this gene and another family member Cldn12 are also critical for vitamin D-dependent Ca²⁺ absorption between enterocytes. [provided by RefSeq, Aug 2010]

Product images:



Circular map for MR202768