

## Product datasheet for MR225217

### Cldn19 (NM\_001038590) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Cldn19 (NM\_001038590) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Cldn19  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR225217 representing NM\_001038590  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCAACTCGGGCCTCCAGCTCCTGGGCTACTTCTAGCCTTGGGCGGCTGGGTGGGCATCATCGCCA  
 GCACTGCCCTGCCACAGTGAAGCAGTCTTCTATGCAGGCGATGCCATCACTGCCGTGGGCCTCTA  
 CGAAGGGCTGTGGATGTCTTGCCTCTCAGAGCACCGGGCAGGTGCAATGCAAACCTCTACGATTCCTC  
 CTGGCCCTGGACGGTCATATCCAGTCAGCACGAGCCCTGATGGTCGTGGCTGTCTCTGGGCTTTGTGG  
 CCATGGTGCTCAGTGTCTGGGATGAAGTGCCTCGGGTTGGAGACAGTAACCCCACTGCCAAGAGCCG  
 TGTGGCCATCTCCGGAGGTGCTCTCTTCTCTTGGCAGGTCTCTGACTTTGACTGCTGTCTCTGGTAT  
 GCTACCCTGGTAACACAGGAATTCTTCAACCCAGCACTCCTGTCAATGCCAGGTACGAATTTGGCCAG  
 CTCTGTTCTGTCGGCTGGCCCTCGGCCGGCTGGCCATGCTGGGCGGTTCTTTCTCTGCTGCACATGCC  
 AGAGCCGGAGAGGGCGAACAGCATCCCACAGCCCTATCGCTCTGGACCCTCAACTGCTGCCAGAGAACCT  
 GTTGTAAAGTTGCCCGCCTCGGTCAAGGGCCCCCTGGGTGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR225217 representing NM\_001038590  
 Red=Cloning site Green=Tags(s)

MANSGLQLLGYFLALGGWVGIIASTALPQWKQSSYAGDAIITAVGLYEGLWMSQSTGQVQCKLYDSL  
 LALDGHISARALMVAVLLGFVAMVLSVVMKCTRVGDSNPTAKSRVAISGGALFLLAGLCTLTAVSWY  
 ATLVTQEFFNPSTPVNARYEFGPALFVGWASAGLAMLGGSFLCCTCEPERANSIPQPYRSGPSTAAREP  
 VVKLPASVKGPLGV

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

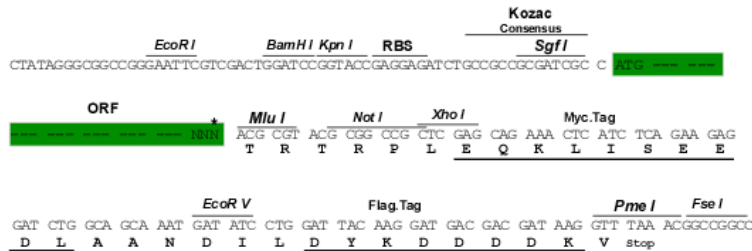
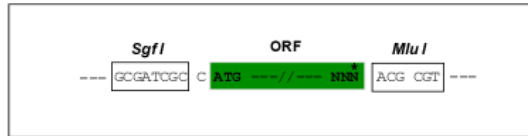


**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9024\\_h07.zip](https://cdn.origene.com/chromatograms/mm9024_h07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001038590

**ORF Size:** 672 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\\_001038590.1](#), [NP\\_001033679.1](#)

**RefSeq Size:** 888 bp

**RefSeq ORF:** 675 bp

**Locus ID:** 242653

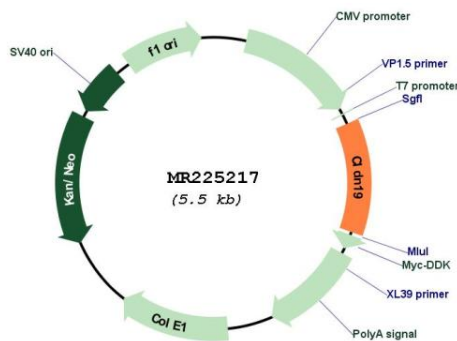
UniProt ID: [Q9ET38](#)

Cytogenetics: 4 D2.1

MW: 23.8 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. siRNA knockdown of this gene in mice develops the FHHNC (familial hypomagnesemia with hypercalciuria and nephrocalcinosis) symptoms of chronic renal wasting of magnesium and calcium together with defective renal salt handling. The protein encoded by this gene interacts with another family member, Claudin 16, and their interaction is required for their assembly into tight junctions and for renal reabsorption of magnesium. This protein is a constituent of tight junctions in the Schwann cells of peripheral myelinated nerves and the gene deficiency affects the nerve conduction of peripheral myelinated fibers. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2010]

**Product images:**



Circular map for MR225217