

## Product datasheet for **MG225326**

### Cldn12 (NM\_001193659) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Cldn12 (NM\_001193659) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Cldn12  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG225326 representing NM\_001193659  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGCTGCCGAGATGTCCACGCAGCCACCGTCCTGTCCTTCTGTGTGGTATTGCCTCTGTGCGAGGCC  
 TCTTTGCGGGGACTCTGCTTCTAACTGGAGGAAACTGCGGCTGATCACATTCAACAGAAACGAGAAGAA  
 CCTGACGATTTACACGGGCTGTGGTGAAGTGTGCCCGGTATGATGGAAGCAGTGACTGCCTGATGTAC  
 GACCGTACGTGGTACCTGTCGGTTGACCAGCTGGACCTGCGTGTCTCCAGTTTGCCTGCCTCTCAGCA  
 TCGTGATCGCAATGGGTGCCTTGTACTCTGCCTGATTGGAATGTGAACACGGCCTTCAATTCTCCGT  
 GCCTAACATCAAAGTGGCAAGTGTCTGGTCAATAGTGCAGGCTGCCACCTGGTGGCCGGACTCCTGTTT  
 TTTCTGGCAGGTACCGTGAAGCTCTCTCCGTCATCTGGCCATCTTTTATAACAGCCATCTCAACAGGA  
 AGTTTGAGCCGGTCTTTACCTTTGACTATGCAGTATTTGTCACTATTGCTAGCTCAGGGGTCTGTTTAT  
 GACTGCTCTCCTGCTGTTTCGTTTGGTATTGTGCATGCAAGTCTTTGTCCTCTCCTTTCTGGCAACCGCTG  
 TACTCTCAGCTCCTGGGATGCACACTTACTCACAGCCCTATTCATCACGGTCCCCTCTCTGCCATTG  
 AAATCGACATTCCAGTAGTCTCACAGCACT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >MG225326 representing NM\_001193659  
 Red=Cloning site Green=Tags(s)

MGCRDVHAATVLSFLCGIASVAGLFAAGTLLPNWRKLRLLITFNRNEKNLTITYGLWVKARYDGSSDCLMY  
 DRTWYLSVDQLDLRVLQFALPLSIVIAMGALLLCLIGMCNTAFNSSVPNIKLA KCLVNSAGCHLVAGLLF  
 FLAGTVSLSPSIWAIIFYNSHLNRKFEPVFTFDYAVFVTIASSGGLFMTALLLVVWYACKSLSSPFWQPL  
 YSHAPGMHTYSQPYSRSLSAIEIDIPVVSHT

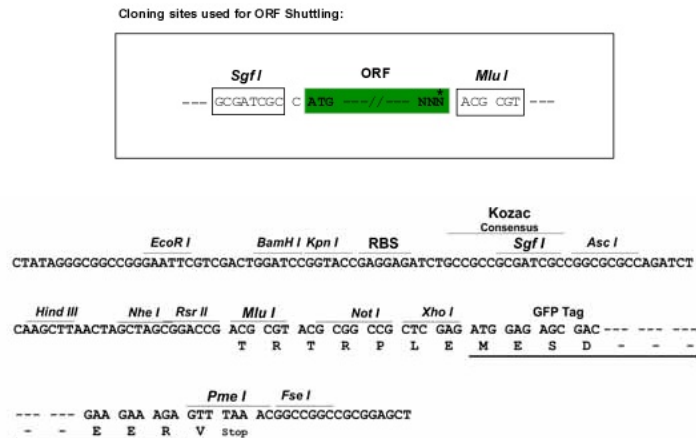
**TRTRPLE** - GFP Tag - V



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**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001193659

**ORF Size:** 732 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

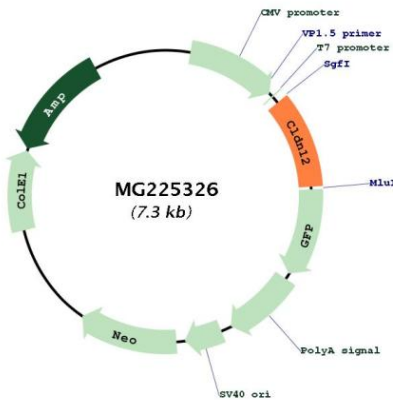
**Reconstitution Method:**

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\\_001193659.1](#), [NP\\_001180588.1](#)  
**RefSeq Size:** 3804 bp  
**RefSeq ORF:** 735 bp  
**Locus ID:** 64945  
**UniProt ID:** [Q9ET43](#)  
**Cytogenetics:** 5 A1

**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. This gene, along with several other family members, is expressed in the inner ear. The protein encoded by this gene and another family member, claudin 2, are critical for vitamin D-dependent Ca<sup>2+</sup> absorption between enterocytes. Multiple alternatively spliced transcript variants encoding the same protein have been found. [provided by RefSeq, Oct 2011]

**Product images:**



Circular map for MG225326