

Product datasheet for **MG203047**

Cldn12 (NM_022890) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cldn12 (NM_022890) 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: >MG203047 representing NM_022890
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGCTGCCGAGATGTCCACGCAGCCACCGTCCTGTCCTTCTGTGTGGTATTGCCTCTGTCGCAGGCC
 TCTTTGCGGGGACTCTGCTTCTAACTGGAGGAAACTGCGGCTGATCACATTCAACAGAAACGAGAAGAA
 CCTGACGATTTACACGGGCTGTGGTGAAGTGTGCCCGGTATGATGGAAGCAGTGACTGCCTGATGTAC
 GACCGTACGTGGTACCTGTCGGTTGACCAGCTGGACCTGCGTGTCTCCAGTTTGCCTGCCTCTCAGCA
 TCGTGATCGCAATGGGTGCCTTGTACTCTGCCTGATTGGAATGTGAACACGGCCTTCAATTCTCCGT
 GCCTAACATCAAAGTGGCAAGTGTCTGGTCAATAGTGCAGGCTGCCACCTGGTGGCCGGACTCCTGTTT
 TTTCTGGCAGGTACCGTGAAGCTCTCTCCGTCATCTGGCCATCTTTTATAACAGCCATCTCAACAGGA
 AGTTTGAGCCGGTCTTTACCTTTGACTATGCAGTATTTGTCACTATTGCTAGCTCAGGGGTCTGTTTAT
 GACTGCTCTCCTGCTGTTTCGTTTGGTATTGTGCATGCAAGTCTTTGTCCTCTCCTTTCTGGCAACCGCTG
 TACTCTCAGCTCCTGGGATGCACACTTACTCACAGCCCTATTCATCACGGTCCCGCCTCTCTGCCATTG
 AAATCGACATTCCAGTAGTCTCACAGCACT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG203047 representing NM_022890
 Red=Cloning site Green=Tags(s)

MGCRDVHAATVLSFLCGIASVAGLFAAGTLLPNWRKLRLLITFNRNEKNLTITYGLWVKARYDGSSDCLMY
 DRTWYLSVDQLDLRVLQFALPLSIVIAMGALLLCLIGMCNTAFNSSVPNIKLAKCLVNSAGCHLVAGLLF
 FLAGTVSLSPSIWAIIFYNSHLNRKFEPVFTFDYAVFVTIASSGGLFMTALLLVVWYACKSLSSPFWQPL
 YSHAPGMHTYSQPYSRSLSAIEIDIPVVSHT

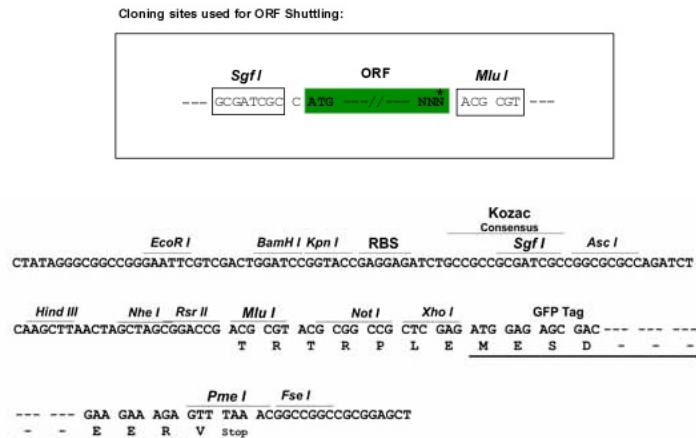
TRTRPLE - GFP Tag - V



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022890

ORF Size: 3791 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 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_022890.1](#)

RefSeq Size: 3625 bp

RefSeq ORF: 735 bp

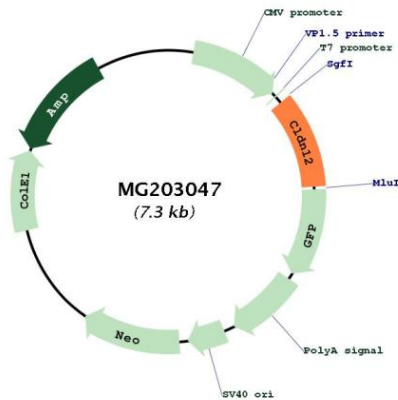
Locus ID: 64945

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 Ca²⁺ 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 MG203047