

## Product datasheet for **MG224818**

### Cldn4 (NM\_009903) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Cldn4 (NM\_009903) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Cldn4  
**Synonyms:** Cep-r; Cpe; Cpet; Cpetr; Cpetr1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG224818 representing NM\_009903  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGTCTATGGGACTACAGGTCCTGGGAATCTCCTTGGCAGTCCTGGGCTGGTGGGGATCATCCTGA  
GTTGTGCGCTCCCATGTGGCGGTGACCGCCTTCATCGGCAGCAACATCGTCACGGCACAGACCAGCTG  
GGAGGGCCTCTGGATGAAGTGCCTGGTGCAGAGCACAGGTCAGATGCAGTGAAGATGTACGACTCGATG  
CTCGCCCTGCCGAGGACCTGCAGGCCGCCGAGCCCTTATGGTCATCAGCATCATCGTGGGTGCTCTGG  
GGATGCTTCTCAGTGGTAGGGGCAAGTGCACCAACTGCATGGAGGACGAGACCGTCAAGGCCAAGAT  
CATGATACCCGCCGAGCCGTGTTTCATCGTGGCAAGCATGCTGATTATGGTGCCCGTGTCTGGACCGCT  
CACAACGTCATCCGCGACTTCTACAACCCTATGGTGGCTTCCGGGCAGAAGAGGGAAATGGGGCCCTCGC  
TTTACGTGGGCTGGGCGGCTCCGGGCTGCTGCTCCTGGGAGGAGGCTCCTCTGCTGCAGTTGCCACC  
TCGTAGCAACGACAAGCCCTACTCGGCCAAGTACTCCGCCGCCGCTCTGTCCCCGCCAGCAACTATGTG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >MG224818 representing NM\_009903  
Red=Cloning site Green=Tags(s)

MASMGLQVLGISLAVLGLWLGII LSCALPMWRVTAFIGSNIIVTAQTSWEGLWMNCVVQSTGQMCKMYDSM  
LALPQDLQAARALMVISIIVGALGMLLSVVGKCTNCMEDETVKAKIMITAGAVFIVASMLIMVPSWTA  
HNVIRDFYNPMVASGQKREMGASLYVWAAAGLLLLGGLLCCSCPPRSNDKPYSKYSAAARSVPASNYV

**TRTRPLE** - GFP Tag - V

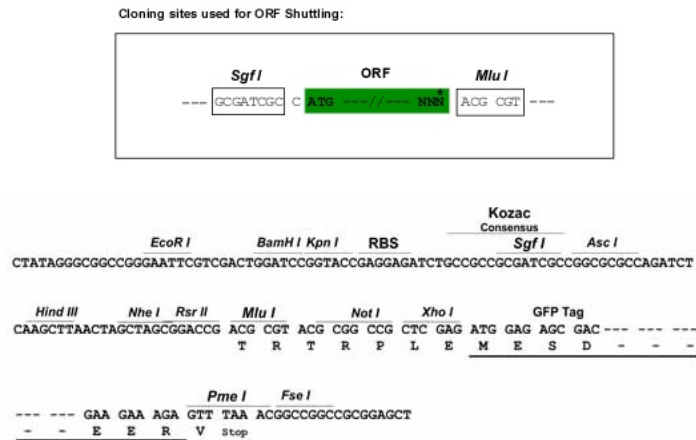
**Chromatograms:** [https://cdn.origene.com/chromatograms/ja2368\\_f11.zip](https://cdn.origene.com/chromatograms/ja2368_f11.zip)



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**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_009903

**ORF Size:** 630 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).

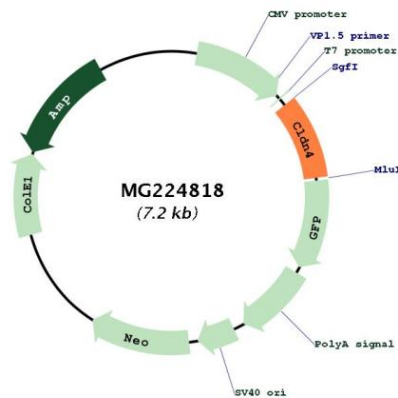
**Reconstitution Method:**

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\\_009903.2, NP\\_034033.1](#)  
**RefSeq Size:** 1827 bp  
**RefSeq ORF:** 633 bp  
**Locus ID:** 12740  
**UniProt ID:** [Q35054](#)  
**Cytogenetics:** 5 74.9 cM

**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 protein encoded by this gene is a high-affinity receptor for clostridium perfringens enterotoxin (CPE) produced by the bacterium Clostridium perfringens, and the interaction with CPE results in increased membrane permeability by forming small pores in plasma membrane. This protein augments alveolar epithelial barrier function and is induced in acute lung injury. It is highly expressed in pancreatic and ovarian cancers. [provided by RefSeq, Aug 2010]

**Product images:**



Circular map for MG224818