

Product datasheet for **MG225210**

Cldn16 (NM_053241) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cldn16 (NM_053241) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cldn16
Synonyms:	claudi; claudin-16; PC; PCLN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG225210 representing NM_053241 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGGATCTTCTTCAGTACGCTGCCTGCTTCTTGCCATATTCTCCACTGGGTTTTGATCGTGGCCA
CCTGGACAGACTGTTGGATGGTGAACGCTGATGACTCCCTGGAGGTGAGCACTAAATGCAGAGGCCTGTG
GTGGGAGTGTGAACAAACGCTTTTGTGGATTGCAACCTGCGATGAGTACGACTCCATATATGCAGAA
CATCCCTTGAAGCTGGTGGTAACTCGAGCACTGATGATCACAGCTGACATTTTAGCTGGCTTTGGATTCA
TACCCTGCTCCTTGGTCTGGACTGTGTGAAGTTCCTACCTGATGACCCACAAATTAAGTCCGCCTTTG
CTTTGTTGCAGGGACCACATTACTCATTGCAGGTACCCAGGAATCATCGTTCTGTGTGGTATGCTGTG
GATGTTTACGTGCAACGCTCCTCTCTCGTTTTACACAATATTTCTTGGGATCCAATATAAATTTGGTT
GGTCTGCTGGCTTGAATGGCTGGTCTTTGGTTGCTTTTTGGCAGGAGCTCTCCTCACCTGCTGTTT
GTACCTTTCAAAGATGTTGGCCTGAGAGGAACCTTATGCCATGAGGAAGCCCTATTCAACTGCA
GGTGTGTCATGGCCAAGTCTACAAGGCCCTCGACAGAGACAGCCAAAATGTATGCTGTAGACACCA
GAGTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG225210 representing NM_053241
Red=Cloning site Green=Tags(s)

MKDLLQYAAACFLAIFSTGFLIVATWTDWVMNADDSLEVSTKCRGLWVECVTNAFDGIRTCDEYDSIYAE
 HPLKLVTRALMITADILAGFGFITLLGLDCVKFLPDDPQIKVRLCFVAGTTLLIAGTPGIIGSVWYAV
 DYYVERSSLVLHNIFLGIQYKFGWSCWLGMAAGSLGCFAGALLTCCLYLFKDVGPERNYPYAMRKPYSTA
 GVSMAKSYKAPRTETAKMYAVDTRV

TRTRPLE - GFP Tag - V

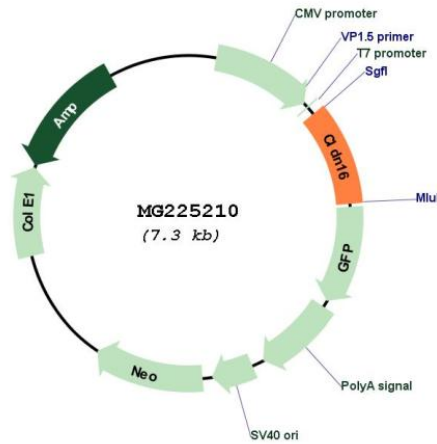
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_053241

ORF Size: 705 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:	<ol style="list-style-type: none">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_053241.5 , NP_444471.1
RefSeq Size:	1173 bp
RefSeq ORF:	708 bp
Locus ID:	114141
UniProt ID:	Q925N4
Cytogenetics:	16 B2
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 critical for renal paracellular epithelial transport of Ca(2+) and Mg(2+) in the thick ascending loop of Henle. The gene deficiency leads to specific alterations in renal Ca(2+) and Mg(2+) balance and also to disturbances in Na(+) handling. The interaction of this gene and the Cldn 19 gene is required for their assembly into tight junctions and for renal Mg(2+) reabsorption. This gene and the Cldn1 gene are clustered on chromosome 16. [provided by RefSeq, Aug 2010]