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Product datasheet for MG225214

Cldn19 (NM_153105) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cldn19 (NM_153105) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cldn19
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG225214 representing NM_153105
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAACTCGGGCCTCCAGCTCCTGGGCTACTTCCTAGCCTTGGGCGGCTGGGTGGGCATCATCGCCA
GCACTGCCCTGCCACAGTGGAAGCAGTCTTCCTATGCAGGCGATGCCATCATCACTGCCGTGGGCCTCTA
CGAAGGGCTGTGGATGTCTTGCGCCTCTCAGAGCACCGGGCAGGTGCAATGCAAACTCTACGATTCACTC
CTGGCCCTGGACGGTCATATCCAGTCAGCACGAGCCCTGATGGTCGTGGCTGTGCTCCTGGGCTTTGTGG
CCATGGTGCTCAGTGTCGTGGGCATGAAGTGCACTCGGGTTGGAGACAGTAACCCCACTGCCAAGAGCCG
TGTGGCCATCTCCGGAGGTGCTCTCTTCCTCTTGGCGGGTCTCTGTACTTTGACTGCTGTCTCCTGGTAC
GCTACCCTGGTAACACAGGAATTCTTCAACCCCAGCACTCCTGTCAATGCCAGGTACGAATTTGGCCCAG
CTCTGTTCGTCGGCTGGGCCTCGGCCGGCCTGGCCATGCTGGGCGGTTCCTTTCTCTGCTGCACATGCCC
AGAGCCGGAGAGGGCGAACAGCATCCCACAGCCCTATCGCTCTGGACCCTCAACTGCTGCCAGAGAGTAC
GTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG225214 representing NM_153105
Red=Cloning site Green=Tags(s)

MANSGLQLLGYFLALGGWVGIIASTALPQWKQSSYAGDAIITAVGLYEGLWMSCASQSTGQVQCKLYDSL
LALDGHIQSARALMVVAVLLGFVAMVLSVVGMKCTRVGDSNPTAKSRVAISGGALFLLAGLCTLTAVSWY
ATLVTQEFFNPSTPVNARYEFGPALFVGWASAGLAMLGGSFLCCTCPEPERANSIPQPYRSGPSTAAREY
V

TRTRPLE - GFP Tag - V

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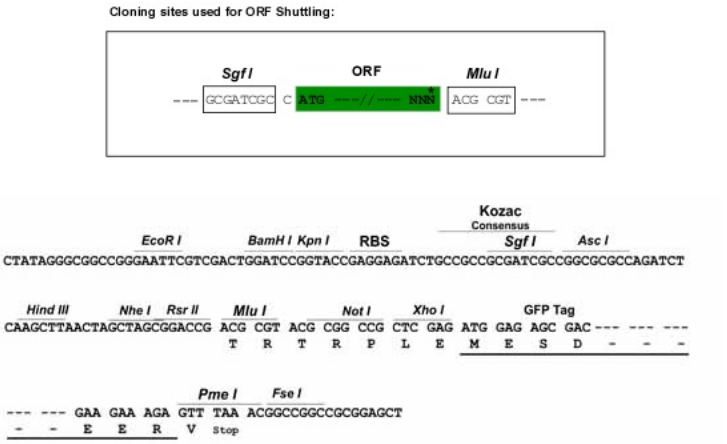
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_153105

ORF Size: 633 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_153105.7, NP_694745.1

RefSeq Size: 4236 bp

RefSeq ORF: 636 bp

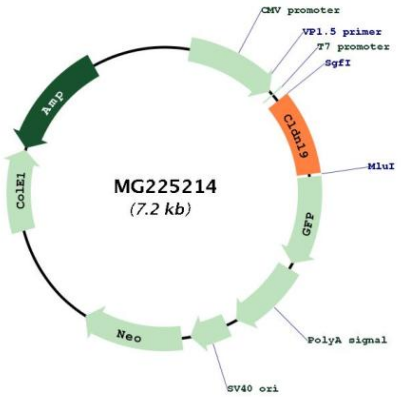
Locus ID: 242653

UniProt ID: Q9ET38

Cytogenetics: 4 D2.1

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 MG225214