

Product datasheet for **MG226129**

Clcn2 (NM_009900) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Clcn2 (NM_009900) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Clcn2
Synonyms:	AL118368; CIC-2; Clc2; nmf240
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG226129 representing NM_009900
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGGTGCAACGGCTGCGGCGGCCGCGGCGGGGGAAGGGATGGAGCCTCGAGCGCTGC
 AGTACGAGCAGACCCTGATGTATGGCCGTACTCAGGAACTCGGGCCTTTGCCAAAGAGGAAGCTGC
 TCGTATTCGCTGGGAGGCCTGAGCCCTGGAAGGGTCCCCTTCTGCCCGGGCTACCCAGAGCTCCTA
 GAATATGGACAGAGCCGATGTGCCAGATGTCGATTTGTTCTGTACGCTGCCACAAGTTCCTGGTGTCCA
 GGGTCGGTGAAGACTGGATCTTCTGGTTCTGTTGGGGCTCCTCATGGCACTGGTCTGAGCTGGGCTATGGA
 CTATGCCATCGTGTCTGTCTACAGGCTCAGCAATGGATGTCCCAGGGCTTAAACACCAACATCTTACTC
 CAGTACCTGGCTTGGTTACCTACCCCGTGGTCTCATCACTTTCTCTGTGGATTACCCAGATCTGG
 CCCACAGGCTGTGGGTCTGGCATCCCCGAAATGAAAACCATCCTTCGGGGAGTGGTGTGAAAGAATA
 CCTCACCTCAAGACCTTTGTAGCTAAGGTCATTGGGCTAACCTGTGCCCTGGCAGTGGGATGCCCTT
 GGCAAAGAGGGACCCCTTTGTGCACATTGCCAGCATGTGTGCCGCCCTTCTCAGCAAGTTCCTCTCCCTCT
 TTGGGGGTATCTATGAGCATGAGTCCCAGAACACGGAGATGCTAGCTGCTGCATGCGCAGTAGGAGTGGG
 CTGCTGCTTTGCCGACCAATCGGAGGGTCTATTACGATTGAAGTACCTCCACCTTCTTCGCTGTT
 AGGAACTACTGGCGGGCTTCTTTGCGGCCACCTTCAGTGCCTTCATCTTTCGGGTCTTGGCAGTGTGGA
 ACCGTGATGAAGAAACATCACAGCTCTTCAAACCTCGGTTCCGACTCGACTTCCCATTTGACCTGCA
 AGAGCTGCCAGCCTTGTGTCTTGGCATTGCTAGTGGCTTCGGGGAGCCCTTTGTCTACCTGAAC
 CGGAAGATTGTCCAGGTGATGCGGAAGCAAAAACCATCAACCGCTTCTCATGAGGAAACGGCTCTCT
 TCCCGCACTGGTACTGCTCATCTCACTCTGACTTCCCCCTGGCTTTGGACAGTTCATGGCCGG
 ACAGCTCTCACAGAAGGAGACCCTAGTCACTCTGTTTGACAACCGGACGTGGGTCCGCCAGGGCCTGGTT
 GAGGATCTAGAGTACCCAGCACTTACAGGCCTGGAGCCACCACGTGCCAATGTCTTCTTACTCTGG
 TCATCTTCATCTCATGAAGTTCTGGATGTCTGCACTGGCTACCACTATCCAGTGCCCTGTGGGCCTT
 CATGCCTGCTTTGTCTTGGAGCGCATTTGGGCGGCTGGTGGGCGAAAGCATGGCCGCTGGTTCCCA
 GATGGGATTACACAGATAGCAGCACCTACCGAATTGTACCTGGAGGCTATGCTGTGGTGGGGCGGCTG
 CACTCGCAGGAGCAGTGACACACAGTGTCCACAGCAGTGATTGTCTTCGAGCTCACGGCCAGATCGC
 TCACATTTCTGCTGTATGATTGCTGTCTCCTGGCTAATGCTGTGCCAGAGCCTGCAGCCATCGCTC
 TATGACAGTATCATCCGCATCAAGAAGCTGCCCTACCTACCTGAGCTGGGCTGGGGCCGCCACCAGCAGT
 ACCGGGTGCGAGTCGAGGACATCATGGTTCGGGATGTACCCCATGTAGCCCTCAGCTGCATTTTCGGGA
 CCTGCGGTTGGCACTGCACAGAACCAAGGGCCGTATGTTGGCCCTAGTGGAGTCTCCTGAGTCCATGATC
 TACTGGGATCCATCGAACGCTCACAGGTGGTAGCACTACTAGGAGCCAGCTGAGCCAGCGCGCAGGC
 GGCAGCACATGCAAAAGCTAAGAAAAGCCAGCTGTCTCCACCGTCGGATCAGGAGAGCCCCCTAGCTC
 CGAGACATCTATCCGCTTCCAGGTGAACACAGAGGACTCGGGCTTCTCTGGAGCCACGGGCAGACTCAC
 AAGCCCCGAAGCCTGCTCTAAGAGAGGGCCAGCAACAGTACAAGCCTGCAGGAAGGTACCACAGGCA
 ACATGGAGTCAGCAGGCATTGCCCTCAGAAGCCTTCTGTGGCAGTCCACCTCTGGAGGCAACATCAGA
 ATTGAAAAGTCAAGATCCTGTGACAAGCGCAAGCTGAAGCGGGTCCGAATCTCCCTGGCAGTACTCA
 GACCCGGAAGCCGAGATGAGTCTGAGGAGATCTTAGAGTGGGAAGAACAGCAGCTAGATGAGCCAGTCA
 ACTTCAGTACTGCAAAAATCGACCCTGCCCTTCCAGCTGGTGGAGCGGACTTCTTTGCACAAGACCCA
 CACCATCTTCTATTGCTGGGAGTGGACCATGCTTATGTCACCAGCATTGGCAGACTCATTGGGATTGTC
 ACCCTAAAGGAGCTCCGGAAGGCCATTGAAGGCTCTGTACAGCACAGGGTGTAAAGTCAGGCCACCCC
 TCGCCAGTTTCGGGACAGTGCCACCAGCAGTGTACACAGAGACCACTGAGGTGCATGCGCTCTGGG
 GCCAAGATCCCGCCAGGCCTCCACAGAGGGTACCCCTCCGACAGTGTGACAAGTGCCAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG226129 representing NM_009900
Red=Cloning site Green=Tags(s)

```

MAAATAAAAAAAAAAAGEGMEPRALQYEQTLMYGRYTQELGAFAKEEAARIRLGGPEPWKGPSARATPELL
EYGQSRCARCRICSVRCHKFLVSRVGEDWIFLVLLGLLMALVSWAMDYAIIVCLQAQQWMSRGLNTNILL
QYLAWVTYPVVLITFSAGFTQILAPQAVGSGIPEMKTILRGVVLKEYLTLKTFVAKVIGLTCALGSGMPL
GKEGPFVHIASMCAALLSKFLSLFGGIYEHSRNTEMLAAACAVGVGCCFAAPIGGVLFSEIVTSTFFAV
RNYWRGFFAATFSAFIFRVLAVWNRDEETITALFKTRFRLDFFDLQELPAFAVIGIASGFGGALFVYLN
RKIVQVMRKQKTINRFLMRKRLLPALVTLLISTLTFPPGFQFMAGQLSQKETLVTLFDNRTWVRQGLV
EDLELPSTSQAWSPPRANVFLTLVIFILMKFWMSALATTIPVPCGAFMPVFIGAAFGRLVGESMAAWFP
DGIHTDSSTYRIVPGGYAVVGAALAGAVTHTVSTAVIVFELTGQIAHILPVMIAVILANAVAQSLQPSL
YDSIIRIKKLPYLPELWGRHQYRVRVEDIMVRDVPVALSCTFRDLRLALHRTKGRMLALVESPEMI
LLGSIERSQVVALLGAQLSPARRRQHMQLRKAQLSPPSDQESPPSSETSIRFQVNTEDSGFSGAHGQTH
KPLKPKALKRGPSNSTSLQEGTTGNMESAGIALRSLFCGSPPLEATSELEKSESCDKRKLKRVRIASLSDS
DPEAEMSPEEILEWEEQQLDEPVNFSACKIDPAPFQLVERTSLHKTHITIFSLLGVDHAYVTSIGRLIGIV
TLKELRKAIEGSVTAQGVKVRPPLASFRDSATSSSDTETTEVHALWGPRSRHGLPREGTPSDSDDKCQ
    
```

TRTRPLE - GFP Tag - V

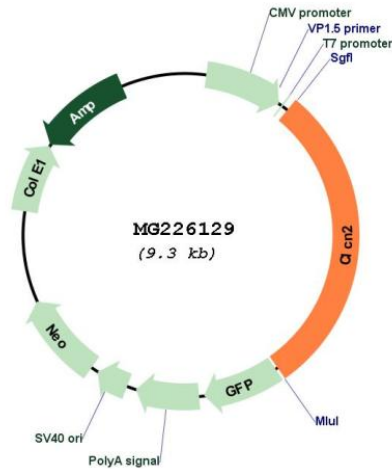
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_009900

ORF Size: 2724 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.

RefSeq: [NM_009900.2](#), [NP_034030.2](#)

RefSeq Size: 3670 bp

RefSeq ORF: 2727 bp

Locus ID: 12724

UniProt ID: [Q9R0A1](#)

Cytogenetics: 16 12.5 cM

Gene Summary:

Voltage-gated chloride channel. Chloride channels have several functions including the regulation of cell volume, membrane potential stabilization, signal transduction and transepithelial transport (By similarity). Involved in the regulation of aldosterone production. The opening of CLCN2 channels at hyperpolarized membrane potentials in the glomerulosa causes cell membrane depolarization, activation of voltage-gated Ca²⁺ channels and increased expression of aldosterone synthase, the rate-limiting enzyme for aldosterone biosynthesis (By similarity).[UniProtKB/Swiss-Prot Function]