

## Product datasheet for **RG226187**

### Chloride Channel 5 (CLCN5) (NM\_001127899) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Chloride Channel 5 (CLCN5) (NM_001127899) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CLCN5
Synonyms:	CIC-5; CLC5; CLCK2; DENTS; hCIC-K2; NPHL1; NPHL2; XLRH; XRN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG226187 representing NM\_001127899  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCCATGTGGCAGGGTCCATGGATAACAGAGGCTTTTCAGCAGGGAGTTTTAGTAGCTTCCAGAACA  
 GCTCCAGTGATGAAGACCTGATGGACATTCAGCAACCGCTATGGATTTCTCCATGAGAGATGATGTTCC  
 TCCCTTAGACCGAGAAGTAGGAGAGGACAAGTCGTACAATGGTGGAGGAATAGGTTCTTCAAATAGGATC  
 ATGGACTTCTGGAGGAGCCAATCCCTGGTGTAGGGACCTATGATGATTTCAATACAATTGATTGGGTGA  
 GAGAGAAGTCTCGAGACCGGGATAGGCACCGAGAGATTACCAATAAAAGCAAAGAGTCAACATGGGCCTT  
 AATTCACAGTGTGAGTATGCTTTTTCCGGCTGGTTGTTGATGCTCCTTATTGGGCTTTTATCAGTTTCG  
 TTAGCTGGTTTGTAGACATCTCTGCTCATTGGATGACAGACTTAAAAGAAGGTATATGCACAGGGGGAT  
 TCTGGTTAAACCATGAACATTGTTGCTGGAACCTGAGCATGTCACCTTTGAAGAGAGAGACAAATGTC  
 AGAGTGGAAATAGTTGGTCCAGCTTATCATCAGCACAGATGAGGGAGCCTTTGCCTACATAGTCAATTAT  
 TTCATGTACGTCCTCTGGGCTCTCTATTGCTTCTTCCGCTATCTCTGTCAAGGTGTTTGGCGCTT  
 ATGCCTGTGGCTCTGGAATCCCTGAGATAAAAATCTTGTAGTGGTTTCATTATTAGGGGCTATTTGGG  
 TAAGTGGACTCTGGTTATCAAAACCATCACCTTGGTGTGGCAGTGTCTGCTGGCTTGGCCTGGGCAAA  
 GAGGGCCCTCTAGTGCACGTGGCTTGTCTGTGGGAACATCCTGTGCCACTGCTTCAACAAATACAGGA  
 AGAATGAAGCCAAGCGCAGAGAGGTCTTGTGGCTGCAGCAGCAGCTGGTGTATCTGTAGCCTTTGGAGC  
 ACCTATAGGTGGAGTATTATTCAGCCTTGAAGAGGTGAGTACTATTTTCCCCTCAAACATTGTGGCGT  
 TCATTTTGTCTGCTTGGTGGCAGCATCACTCTACGCTCCATCAATCCATTGGGAACAGCCCGCTGG  
 TACTATTTATGTGGAGTTTACACCCCCATGGCATCTCTTTGAGCTCGTGCCATTCTGTCTGGGCAT  
 ATTTGGTGGTCTGTGGGAGCACTGTTTATCCGCACAAACATTGCCTGGTGTGGGAAGCGAAAGACCACC  
 CAGTTGGCAAGTATCCTGTTATAGAGGTACTCGTGTGACAGCCATCACTGCCATCCTGGCTTTCCCCA  
 ATGAATACACTCGGATGAGCACAAGTGAAGTCACTTCTGAGCTGTTAATGACTGTGGCCTTCTGGACTC  
 CTCCAAGCTCTGTGATTATGAGAACCGTTTCAACACAAGCAAAGGGGGTGAAGTGCCTGACAGACCGGCT  
 GGCGTGGGAGTCTACAGTGAATGTGGCAGCTGGCTTAACTACTACTGAAAATTGTCATTACTATAT  
 TCACCTTTGGCATGAAGATCCCTTCTGGCCTTTTATCCCTAGCATGGCTGTTGGTGTATAGCAGGTG  
 ACTTCTAGGAGTAGGAATGGAACAGCTGGCTTATTACCACCAGGAATGGACCGTCTTCAATAGCTGGTGT  
 AGTCAGGGAGCTGATTGCATCACCCCGGCTTTATGCAATGGTTGGGGCTGCAGCTGCTTAGGTGGGG  
 TGAAGTGGGATGACTGTTTCTTGTGTCATAATGTTTGAAGTACTGGTGGCTTGAATACATCGTGCC  
 TCTGATGGCTGCAGCCATGACAAGCAAGTGGGTGGCAGATGCTCTTGGGCGGGAGGGCATCTATGATGCC  
 CACATCCGTCTCAATGGATACCCCTTTCTTGAAGCCAAAGAAGAGTTTGCTCATAAGACCCTGGCAATGG  
 ATGTGATGAAACCCCGGAGAAATGATCCTTTGTTGACTGTCTTACTCAGGACAGTATGACTGTGGGAAGA  
 TGTAGAGACCATAATCAGTGAACCACTTACAGTGGCTTCCCAGTGGTGGTATCCCGGGAGTCCCAAAGA  
 CTTGTGGGCTTTGTCTCCGAAGAGATCTATTATTTCAATTGAAAATGCTCGAAAGAAACAGGATGGGG  
 TTGTTAGCACTTCCATCATTTATTTACGGAGCATTCTCTCCATTGCCACCATACTCCACCCACTT  
 AAAGCTTCGGAACATCCTCGATCTCAGCCCTTCACTGTGACTGACCTTACACCCATGGAGATCGTAGT  
 GATATTTTCCGAAAGCTGGGACTGCGGCAGTGCCTGGTTACACACAACGGGCGATTGCTTGAATCATT  
 CCAAAAAGGATGTGTTAAAGCATATAGCACAGATGGCGAACCAAGATCCTGATTCCATTCTTCAAC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG226187 representing NM\_001127899  
 Red=Cloning site Green=Tags(s)

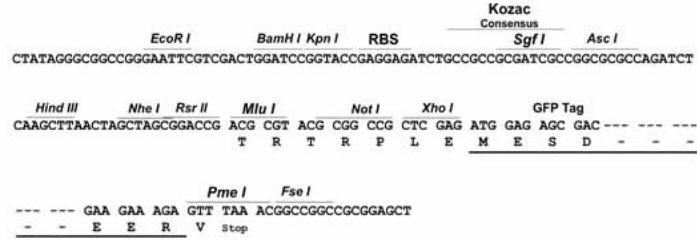
```
MAMWQGAMDNRGFQQGSFSSSQNSSSDEDLMDIPATAMDFSMRDDVPPLDREVGEDKSYNGGGIGSSNRI
MDFLEETIPGVGTYYDFNTIDWVREKSRDRDRHREITNKSKESTWALIHSVSDAFSGWLLMLLIGLLSGS
LAGLIDISAHWMTDLKEGICTGGFWFNHEHCCWNSEHVTFEERDKCEWNSWSQLIISTDEGAFAYIVNY
FMYVLWALLFAFLAVSLVKVFAPYACGSGIPEIKTILSGFIIRGYLGKWTLVIKTITLVAVSSGLSLGK
EGPLVHVACCCGNILCHCFNKYRKNEAKRREVLAAAAAGVSVAFGAPIGGVLFSLLEVSYYFPLKTLWR
SFFAALVAAFTLRSINPFGNSRLVLFYVEFHWPWHLFELVPFILLGIFGGLWGALFIRTNIAWCRKRKTT
QLGKYPVIEVLVVTAITAILAFPNEYTRMSTSELISELFNDCGLLDSSKLCDYENRFNTSKGGELPDRPA
GVGVYSAMWQLALTLILKIVITIFTFGMKIPSGLFIPSMVAGAIAGRLLGVGMEQLAYYHQEWTVFNSWC
SQGADCITPGLYAMVGAACLGGVTRMTVSLVVIMFELTGGLEYIVPLMAAAMTSKWVADALGREGIYDA
HIRLNGYPFLEAKEEFAHKTAMDVMKPRRNDPLLTVLTQDSMTVEDVETISETTYSGFVVVSRESQR
LVGFVLRRLIISIENARKKQDGVVSTSIYFTEHSPPLPPYTPPTLKLNRNILDLSPTVTDLTPMEIVV
DIFRKLGLRQCLVTHNGRLLGIITKKDVLKHIAQMANQDPDSILFN
```

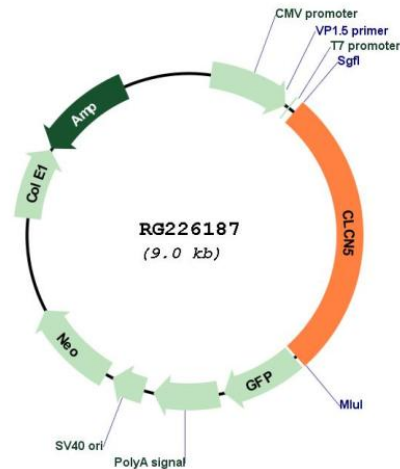
TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

## Cloning Scheme:

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_001127899

**ORF Size:** 2448 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\\_001127899.2](#)

**RefSeq Size:** 10108 bp

**RefSeq ORF:** 2451 bp

**Locus ID:** 1184

**UniProt ID:** [P51795](#)

**Cytogenetics:** Xp11.23

**Protein Families:** Druggable Genome, Ion Channels: Other, Transmembrane

**Gene Summary:** This gene encodes a member of the CIC family of chloride ion channels and ion transporters. The encoded protein is primarily localized to endosomal membranes and may function to facilitate albumin uptake by the renal proximal tubule. Mutations in this gene have been found in Dent disease and renal tubular disorders complicated by nephrolithiasis. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jan 2013]