

## Product datasheet for **RG217040**

### **CLCN4 (NM\_001830) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CLCN4 (NM_001830) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CLCN4
Synonyms:	CIC-4; CIC-4A; CLC4; MRX15; MRX49; MRXSRC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG217040 representing NM\_001830  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTCAATGCGGGAGCGATGAGTGGCTCTGAAACCTGATGGATTTCTCGATGAGCCGTTCCCTGATG  
 TGGGGACGTATGAGGACTTCCACACCATCGACTGGCTAAGGGAAAAGTCACGGGACACCGACAGACACAG  
 GAAGATACCCAGCAAGAGCAAGGAGTCCATATGGGAGTTCATCAAGAGCCTGCTGGATGCCTGGTCGGGA  
 TGGGTGGTGTGCTCATCGCCTGCTGGCGGCACCTGGCTGGGGTTCATCGATCTCGCCGTGGACT  
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 GACCATTTTGGCGGCTTATCATCAGGGGCTACTTGGGAAGTGGACCCTGCTAATCAAGACAGTCACG  
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 AGCTGCAGCGGCTGCTGGAGTCTCTGTTGCCTTTGGTGCACCAATTGGAGGCGTCTTTTCAGTCTAGAA  
 GAGGTCAGTTACTACTTTCCCTGAAGACCTTGTGGAGGTCATTTTTCGCAGCCCTGGTGGCGGCCCTTA  
 CGCTGAGATCCATCAATCCCTTTGGGAATAGCCGCTCTCGTTCTCTTTTATGTGGAATACCACAGCCCTG  
 GTACATGGCTGAACCTCTCCCTTATCCTGCTTGGGGTCTTCGGGGCTTGTGGGAACCTCTTCATC  
 CGCTGCAACATCGCCTGGTGCAGGAGGGCAAGACCACCAGGCTGGGGAAGTACCCGGTGTGGAGGTCA  
 TTGTGGTACTGCCATCACTGCCATCATTGCCTACCCCAATCCCTACACACGCCAGAGCACCAGCGAGCT  
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 AACATGACTCGGCCTGTGGATGACATTCAGACCGGCCGCTGGTGTGGTGTGTTACACGCCATGTGGC  
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 CCTCTTCATCCCCAGCATGGCTGTGGCGCGATAGCGGGCAGGATGGTGGGAATTGGCGTGGAGCAGCTG  
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 TTGACGTGAAGGACGAGTTTACTCACCGCACACTGGCCACCGACGTCATGCGGCCCGGGCGGGAGAGCC  
 GCCACTGTGGTGTCTACCCAGGACAGCATGACTGTGAGGACGTTGGAGACGCTCATCAAGGAGACCGAC  
 TACAACGGCTTCCCCTGGTGGTCTCCAGAGACTCCGAGCGCCTCATTGGATTTGCCAGAGGAGGGAAAC  
 TGATTCTCGCAATAAATAACGCCAGACAGAGGCAGGAGGGCATTGTGAGCAATCCATCATGTACTTCAC  
 GGAGGAACCCCCGAGCTGCCGGCAACAGCCACATCCCCTGAAGCTGCGGCGCATCCTGAACCTCAGC  
 CCGTTTACAGTGACAGACCACACTCCGATGGAACGGTGGTGGATATCTCCGAAACTGGGGCTTCGGC  
 AGTGCCTGGTACGCGGAGCGGGAGACTTCTTGGCATCATCAAAAAAGGATGTTCTGAGACATATGGC  
 CCAGATGGCAAACCAGGACCCCGAATCCATCATGTTAAT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG217040 representing NM\_001830  
Red=Cloning site Green=Tags(s)

```
MVNAGAMSGSGNLMDFLDEFPDVGTYEDFHTIDWLREKSRDTRHRKITSKSKESIWEFIKSLDDAWSG
WVVMLLIGLLAGTLAGVIDLAVDWMMDLKEGVCLSAFWYSHEQCCWTSNETTFEDRDKCPLWQKWSSELLV
NQSEGASAYILNLYMYILWALLFAFLAVSLVRVFAPYRCGSGIPEIKTILSGFIIRGYLGKWTLLIKTVT
LVLVVSSGLSLGKEGPLVHVACCCGNFFSSLSFSKYSKNEGKRREVLAAAAAGVSVAFGAPIGGVLFSE
EVSYYFPLKTLWRSFFAALVAFTLRSINPFGNSRLVLFYVEYHTPWYMAELFPFILLGVFGGLWGTLFI
RCNIAWCRRRKTTTLGKYPVLEIVVTAITAIYAIPNPYRQSTSELISELFNDCGALESSQLCDYINDP
NMTRPVDDIPDRPAGVGVYAMWQLALALIFKIVVTIFTFGMKIPSGLFIIPSMVAGAIAGRMVIGIVEQL
AYHHHDWYYFRNWCRPGADCVTPLGYAMVGAACLGGVTRMTVSLVVIMFELTGGLEYIVPLMAAAVTSK
WVADAFGKEGIYEAHIHNLGYPFLDVKDEFTHRTLATDVMRPRRGEPPLSVLTQDSMTVEDVETLIKETD
YNGFPVVVSRDSERLIGFAQRRELILAINNARQRQEGIVSNSIMYFTEEPELPANSPHPLKLRILNLS
PFTVTDHTPMETVVDIFRKLGLRQCLVTRSGRLGIITKKDVLRHMAQMANQDPESIMFN
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001830

**ORF Size:** 2280 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\\_001830.2](#), [NP\\_001821.1](#)

**RefSeq Size:** 4562 bp

**RefSeq ORF:** 2283 bp

**Locus ID:** 1183

**UniProt ID:** [P51793](#)

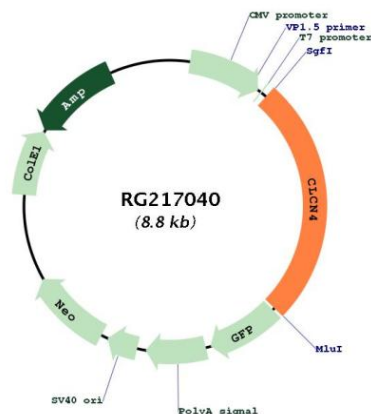
**Cytogenetics:** Xp22.2

**Domains:** CBS, voltage\_CLC

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

**Gene Summary:** The CLCN family of voltage-dependent chloride channel genes comprises nine members (CLCN1-7, Ka and Kb) which demonstrate quite diverse functional characteristics while sharing significant sequence homology. Chloride channel 4 has an evolutionary conserved CpG island and is conserved in both mouse and hamster. This gene is mapped in close proximity to APXL (Apical protein *Xenopus laevis*-like) and OA1 (Ocular albinism type I), which are both located on the human X chromosome at band p22.3. The physiological role of chloride channel 4 remains unknown but may contribute to the pathogenesis of neuronal disorders. Alternate splicing results in two transcript variants that encode different proteins. [provided by RefSeq, Mar 2012]

### Product images:



Circular map for RG217040