

## Product datasheet for **RC222621**

### CLCN2 (NM\_004366) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CLCN2 (NM_004366) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CLCN2
Synonyms:	CIC-2; cIC-2; CLC2; ECA2; ECA3; EGI3; EGI11; EGMA; EJM6; EJM8; HALD2; LKPAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC222621 representing NM\_004366  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGCGCGCGCGCGCGGAGGAAGGGATGGAGCCACGGGCGCTGCAGTACGAGCAGACCCTGATGTATG  
 GCCGGTACACTCAGGACCTTGGGGCCTTTGCCAAAGAGGAAGCTGCTCGATTTCGCTGGGAGGGCCTGA  
 ACCCTGGAAAGGTCCCCCTTCTCTCGGGCTGCCCCAGAGCTCTTGAATATGGACGGAGCCGTTGCGCC  
 CGATGCCGCGTCTGTTCTGTCCGCTGCCACAAGTTCTAGTATCCAGGGTTGGTGAAGATTGGATCTTCC  
 TGGTCTGCTGGGGCTTCTCATGGCATTGGTCAGCTGGGTATAGACTATGCCATTGCTGCCTGTCTGCA  
 AGCCAGCAGTGGATGTCCCGGGCTTGAACACCAGCATCTTGTCCAGTACCTGGCCTGGGTACCTAC  
 CCTGTTGCTCATCACTTTCTCAGCCGGATTACACAGATCCTGGCCCTCAGGCTGTCGGCTCTGGCA  
 TCCCTGAGATGAAGACCATCTTGCGGGAGTGGTGTGAAAGAATACCTCACACTCAAGACCTTTATAGC  
 TAAGGTCAATGGGCTGACCTGCGCCCTAGGCAGCGGGATGCCGCTTGGCAAAGAGGGCCCTTTTGTGCAT  
 ATCGCAAGCATGTGTGCTGCCCTTCTCAGCAAGTTCTCTCCCTCTTGGGGGTATCTATGAGAATGAAT  
 CCCGGAACACAGAGATGCTGGCTGCCGCTGTGCCGTGGGGTGGGCTGTGCTTCGCGGCACCTATTGG  
 AGGCGTCTCTTACGATCGAGGTACCTCCACCTTCTTTCAGTGCAGGAACTACTGGCGGGCTTCTTC  
 GCTGCCACCTTACGTGCCTTCACTTCCGGGTCTTGGCAGTCTGGAACCGGGATGAAGAGACTATTACAG  
 CCCTCTTCAAACCCGATTCCGGCTCGACTTCCCTTTGACCTGCAGGAGCTGCCAGCCTTTGCTGTCA  
 TGGTATTGCTAGTGGCTTCGGTGGAGCCCTTTTGTCTACCTGAACCGGAAGATTGTCCAGGTGATGCGG  
 AAGCAGAAAACCATCAATCGCTTCTCATGAGGAAACGCTGCTTCCCGGCTCTGGTGACCCTGCTCA  
 TCTCCACGCTGACCTTCCCCCTGGCTTTGGACAGTTTTCAGTGGTGGACAGCTCTCACAGAAAGAGAGCCT  
 GGTCAACCCTGTTTGAACAATCGGACGTGGGTCCGCCAGGGCTGGTGGAGGAGCTAGAACCACCCAGCACC  
 TCACAGGCTGGAACCCACCACGTGCCAACGTCTTCTCACCTGGTCACTTCTCATGAAGTTCT  
 GGATGTCTGCACTGGCCACCACCATCCAGTTCCTGTGGGGCTTTCATGCCTGTCTTTGTCTTGGAGC  
 AGCATTGGGGCTCTGGTGGGTGAAAGCATGGCTGCCTGGTTCAGATGGAATTCATACGGACAGCAGC  
 ACCTACCGGATTGTGCCTGGGGCTACGCTGTGGTTCGCTGCGCTGGCAGGAGCGGTGACACACAGTGT  
 CCACGGCTGTGATCGTTCGAGCTCACAGGCCAGATTGCCACATCCTGCCTGTATGATCGCCGTCAT  
 CCTGGCCAACGCTGTGCCCAGAGTCTGCAGCCCTCCCTCTATGACAGCATCATCGAATCAAGAACTG  
 CCCTACCTGCCTGAGCTCGGCTGGGGCCGCCACCAGCAGTACCGGTGCGTGTGGAGGACATCATGTTGC  
 GGGATGTTCCCATGTGGCCCTCAGCTGCACCTTCCGGGACCTGCGTTTGGCACTGCACAGGACCAAGGG  
 CCGAATGTGGCCCTAGTGGAGTCCCCTGAGTCCATGATTCTGCTGGGCTCCATCGAGGCTTACAGGTG  
 GTGGCATTGTTGGGGGCCAGCTGAGCCAGCCCGCCGGCGGCAGCACATGCAGGAGCGCAGAGCCACCC  
 AGACCTCTCCACTATCTGATCAGGAGGGTCCCCCTAGCCCTGAGGCTTCTGTCTGCTTCCAGGTGAACAC  
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 CCCAGTGTACCAGGAACCTCGGAGAGAGTCCACAGGGAGCGCAGAGTCGGCAGGCATCGCCCTCCGGA  
 GCCTCTTCTGTGGCAGTCCACCCCTGAGGCTGCTTCGGAGAAGTTGGAATCCTGTGAGAAGCGCAAGCT  
 GAAGCGTGTCCGAATCTCCCTGGCAAGTGACCGGACCTGGAAGGCGAGATGAGCCCTGAAGAGATTCTG  
 GAGTGGGAGGAGCAGCAACTAGATGAACCTGTCAACTTCACTGACTGCAAAATTGATCCTGCTCCCTTCC  
 AGCTGGTGGAGCGGACCTCTTTCACAAGACTCACACTATCTTCTCACTGCTGGGAGTGGACCATGCTTA  
 TGTACCAGTATTGGCAGACTCATTGGAATCGTTACTCTAAAGGAGCTCCGGAAGGCCATCGAGGGCTCT  
 GTCACAGCACAGGGTGTGAAAGTCCGGCCGCCCTCGCCAGCTTCCGAGACAGTGCCACCAGCAGCAGTG  
 ACACGGAGACCACTGAGGTGCATGCACTCTGGGGCCCCACTCCCGTCATGGCCTCCCCGGGAGGGCAG  
 CCCTTCCGACAGCAGCAAAATGCCAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC222621 representing NM\_004366  
 Red=Cloning site Green=Tags(s)

MAAAAAEEGMEPRALQYEQTLMYGRYTQDLGAFAKEEAARIRLGGPEPWKPPSSRAAPELLEYGRSRCA  
 RCRVCSVRCHKFLVSRVGEDWIFLVLLGLLMALVSWVIDYIAACLQAQQWMSRGLNTSILLQYLAWVTY  
 PVVLTITFSAGFTQILAPQAVGSGIPEMKTILRGVVLKEYLTKTFIAKVIGLTCALGSGMPLGKEGPFVH  
 IASMCALLSKFLSLFGGIYENESRNTMLAAACAVGVGCCFAAPIGGVLFIEVSTFFFAVRNYWRGFF  
 AATFSAFIFRVLAVWNRDEETITALFKTRFRLDFFDLQELPAFAVIGIASGFGGALFVYLNKIVQVMR  
 KQKTINRFLMRKRLFPALVTLTISTLTFPPGFQFMAGQLSQKETLVTLFDNRWVRQGLVEELEPPST  
 SQAWNPPRANVFLTLVIFILMKFWMSALATTIPVPCGAFMPVFI GAAGFRLVGSMAAWFPDGIHTDSS  
 TYRIVPGGYAVVAALAGAVTHTVSTAVIVFELTGQIAHILPVMIAVILANAVAQSLQPSLYDSIIRIKKL  
 PYLPELWGRHQYRVRVEDIMVRDVPHVALSCTFRDLRLALHRTKGRMLALVESPEMILLGSIERSQV  
 VALLGAQLSPARRRQHMQERRATQTSPLSDQEGPPSPEASVCFQVNTEDSAFPAARGETHKLPALKRG  
 PSVTRNLGESPTGSAESAGIALRSLFCGSPPEAASEKLESCERKLRVRI SLASDADLEGEMSPPEIL  
 EWEEQQLDEPVNFSACKIDPAPFQLVERTSLHKHTHIFSLLGVDHAYVTSIGRLIGIVTLKELRKAIEGS  
 VTAQGVKVRPPLASFSDSATSSSDTETTEVHALWGPSRHLPREGSPSDSDDKCV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6044\\_f01.zip](https://cdn.origene.com/chromatograms/mk6044_f01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:

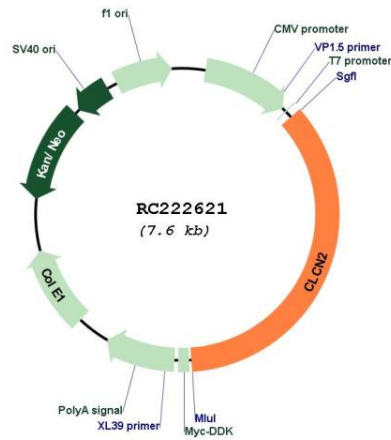


\* The last codon before the Stop codon of the ORF

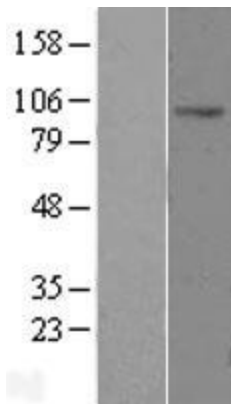
**ACCN:** NM\_004366

<b>ORF Size:</b>	551 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_004366.6</a>
<b>RefSeq Size:</b>	2697 bp
<b>RefSeq ORF:</b>	2697 bp
<b>Locus ID:</b>	1181
<b>UniProt ID:</b>	<a href="#">P51788</a>
<b>Cytogenetics:</b>	3q27.1
<b>Domains:</b>	CBS, voltage_CLC
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Other, Transmembrane
<b>MW:</b>	98.4 kDa
<b>Gene Summary:</b>	This gene encodes a voltage-gated chloride channel. The encoded protein is a transmembrane protein that maintains chloride ion homeostasis in various cells. Defects in this gene may be a cause of certain epilepsies. Four transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2012]

Product images:



Circular map for RC222621



Western blot validation of overexpression lysate (Cat# [LY401393]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222621 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).