

## Product datasheet for **SC108053**

### CLC7 (CLCN7) (NM\_001287) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CLC7 (CLCN7) (NM_001287) Human Untagged Clone
Tag:	Tag Free
Symbol:	CLC7
Synonyms:	CLC-7; CLC7; HOD; OPTA2; OPTB4; PPP1R63
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL6</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC108053 sequence for NM\_001287 edited (data generated by NextGen Sequencing)

```
ATGGCCAACGTCTCTAAGAAGGTGTCCTGGTCCGGCCGGGACCGGGACGACGAGGAGGCG
GCGCCGCTGCTGCGGAGGACGGCGCGGCCCGGGGGGACGCCGCTGCTGAACGGGGCT
GGGCTGGGGCTGCGGCCAGTACCACGTTCTGCGCTTTTCCGAGTCGGACATATGAGC
AGCGTGGAGCTGGATGATGAACTTTGGACCCGGATATGGACCCTCCACATCCCTCCCC
AAGGAGATCCCACACAACGAGAAGCTCCTGTCCCTCAAGTATGAGAGCTTGGACTATGAC
AACAGTGAGAACCAGCTGTTCTGGAGGAGGAGCGGCGGATCAATCACACGGCCTCCGG
ACGGTGGAGATCAAGCGCTGGGTGATCTGCGCCCTCATTGGGATCCTCACGGGCCTCGTG
GCCTGTTTATTGACATCGTGGTGGAAAACCTGGCTGGCCTCAAGTACAGGGTCAACAAG
GGCAATATCGACAAGTTCACAGAGAAGGGCGGACTGTCCTTCTCCCTGTTGCTGTGGCC
ACGCTGAACGCCCTTCTGCTGCTGCGGCTCTGTGATTGTGGCTTTCATAGAGCCGGTG
GCTGCTGGCAGCGAATCCCCAGATCAAGTGCTTCTCAACGGGGTGAAGATCCCCAC
GTGGTGGCGCTCAAGACGTTGGTATCAAAGTGCCGGTGTGATCCTGTCCGTGGTGGG
GGCCTGGCCGTGGAAAGGAAGGGCCGATGATCCACTCAGTTTCAAGTATTGCCCGGGG
ATCTCTCAGGGAAGGTCAACGCTACTGAAACGAGATTTCAAGATCTTCGAGTACTCCGC
AGAGACACAGAGAAGCGGACTTCGTCTCCGACGGGGCTGCGGCCGGAGTGTACAGCGCG
TTTGGAGCCCCGTGGTGGGGTCTGTTTCCAGCTTGGAGGAGGGTGCCTCCTTCTGGAAC
CAGTTCCTGACCTGGAGGATCTTCTTTCCTTCCATGATCTCCACGTTTACCCTGAATTT
GTTCTGAGCATTACCACGGGAACATGTGGGACCTGTCCAGCCAGGCGCTCATCACTTC
GGAAGGTTTACTCGGAGAAAATGGCCTACACGATCCACGAGATCCCGGTCTTTCATCGCC
ATGGCGTGGTGGGCGGTGTGCTGGAGCAGTGTCAATGCCTTGAAGTACTGGTGACC
ATGTTTCAATCAGGTACATCCACCGCCCTGCCTGCAGGTGATTGAGGCCGTGCTGTG
CGCCCGTCCAGGCCACAGTTGCTTTCGTGCTGATCTACTCGTCCGGGATTGCCAGCC
CTGACGGGGGCTCCATGTCCTACCCGCTGCAGCTCTTTTGTGCAGATGGCGAGTACAAC
TCCATGGCTGCGGCTTCTTCAACACCCCGGAGAAGAGCGTGGTGGAGCTTTCACGAC
CCGCCAGGCTCTACAACCCCTGACCCTCGGCTGTTTACGCTGGTCTACTTCTTCTG
GCCTGCTGGACTACGGGCTCACGGTGTCTGCCGGGTCTTATCCCGTCCCTGCTCATC
GGGCTGCCTGGGCGGCTCTTTGGGATCTCCCTGTCTTACCTACGGGGGCGGCGATC
TGGGCGGACCCCGCAAATACGCCCTGATGGGAGCTGCTGCCAGCTGGGCGGGATTGTG
CGGATGACTGAGCCTGACCGTATCATGATGGAGGCCACCAGCAACGTGACCTACGGC
TTCCCCATCATGCTGGTGTGATGACCGCAAGATCGTGGGCGACGTCTTATTGAGGGC
CTGTACGACATGCACATTGAGCTGCAGAGTGTGCCCTTCTGCACTGGGAGGCCCGGTC
ACCTCACACTCACTACTGCCAGGGAGGTGATGAGCACACCAGTGACCTGCCTGAGGCGG
CGTGAGAAGGTCGGCGTATTGTGGACGTGCTGAGCGACACGGCGTCCAATCACAAACGGC
TTCCCCGTGGTGGAGCATGCCGATGACACCCAGCTGCCCGGCTCCAGGGCCTGATCCTG
CGCTCCAGCTCATCGTTCTCTAAAGCACAAGGTGTTTGTGGAGCGGTCCAACCTGGGC
CTGGTACAGCGGCGCTGAGGCTGAAGGACTTCCGAGACGCTACCCGCGCTTCCACCC
ATCCAGTCCATCCAGTGTCCAGGACGAGCGGGAGTGCACCATGGACCTCTCCGAGTTC
ATGAACCCCTCCCTACACGGTCCCCAGGAGCGTCTGCTCCACGGGTGTTCAAGCTG
TTCCGGGCGCTGGCCTGCGGCACCTGGTGGTGGTGGACAACCGCAATCAGTTGTGCGG
TTGGTGACCAGGAAGGACCTCGCCAGGTACCGCCTGGAAAGAGAGGCTTGGAGGAGCTC
TCGCTGGCCAGACGTGA
```

Clone variation with respect to NM\_001287.4

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_001287 unedited  
 NNNNNNNNNGGGGAAANNNNNNNNNNNNNNANAAATTTTCCCGCCCGTTGCCGCAA  
 AGGGCGGTAGGCGTGTACGGTGGGNAGTCTATATAAGCAGNACTCATTTAGGTGACACTA  
 TAGAATACAAGCTACTTGTCTTTTTGCAGCGGCCGGAATTCGGCACGAGGCCGCGGGC  
 GGCCATGGCCAACGTCTCTAAGAAGGTGTCTGGTCCGGCCGGGACCGGGACGACGAGGA  
 GGCGCGCCGCTGCTGCGGAGGACGCGCGGCCGGCGGGGGACGCCGCTGCTGAACGG  
 GGCTGGCCCTGGGGCTGCGCGCCAGTCACCACGTTCTGCGCTTTCCGAGTCGGACATAT  
 GAGCAGCGTGGAGCTGGATGATGAACCTTTGGACCCGGATATGGACCCTCCACATCCCTT  
 CCCAAGGAGATCCACACAACGAGAAGCTCCTGTCCCTCAAGTATGAGAGCTTGGACTA  
 TGACAACAGTGAGAACCAGCTGTTCTGGAGGAGGAGCGCGGATCAATCACACGGCCTT  
 CCGGACGGTGGAGATCAAGCGCTGGGTCATCTGCGCCCTATTGGGATCCTCACGGGCT  
 CGTGGCCTGCTTCATTGACATCGTGGTGGAAAACCTGGTGGCCTCAAGTACAGGGTCAT  
 CAAGGGCAATATCGACAAGTTCACAGAGAAGGGCGGACTGTCTTCTCCCTGTTGCTGTG  
 GGCCACGCTGAACGCCGCTTCGTGCTCGTGGGCTCTGTGATTGGCTTTCATAGACC  
 GGTGGCTGCTGGCAGCGAATCCCCAGATCAAGTGCTTCTCAACGGNGTGAAGATCCC  
 CCACGTGGTGGCGCTCAAGACGTTTGTGATCAAAGTGCCGTTGTGATCCTGTCCGTGGT  
 CGGGGCCCTGGCGTGGAAAAAGAAAGGCCG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_001287 unedited  
 ATACTTATGTACGCGCCGATTCTAAGATCGGTTTTTTTTTTTTTTTTTTTGTGAATCCT  
 AACCGCTGATTTTATTTAAACGAATATATCCAAAATTGACTTCCAGGTCCTCAGTAC  
 ACAACCACCACGAGGGAAACCCAGACCTAGGTTTCCGGCGCCGACTCTGAGGCCCGGGAG  
 TTTTCTTCTTGCCTCACCCAGCGTGGGCACCCCGGCCGCCCCCTCCACCTGGAGCGC  
 CTCTGCCTTGCCCCAGACCCACAGCCAGGAGCCAGAGGAGGGAGGCTGAGGGGCGGGG  
 ACGAGGAAGAGGATGTGGCTGGTGCCTGGGTGGCCGACGCCGCTGTCTTTCACGCCTGT  
 CTCACTCCACACGGTGCCCCGACCCAGGGTCCCGAAAGTCCCAAGCTGTTGGACGTGGT  
 CTGGGTGGGGTGGGAGGGACGACGCTGGCAAAGGCGGGCTGAGAGGATTTCTTTATTTCCG  
 CGTTCAGACCCAAACACTCGGACACCTTGGGGCCCTGTGAGGGCTAAGCAGGGTGGTGG  
 CGTCAGTCCCAGGGAGGCCCACTCCCTGGGGAGGAAATACACGGCAGGGNGGCCGAC  
 CCAGCCCCCAGCGATGGACCCGTGTTGCTCTAACAAGGACACTGAAGTTGCCTTGCCG  
 CCCCGTGAAGGGCTGTGGCGGGCCCCAGACCCAGCCAGCCAGCCAGGAGGAGAGCCTCCA  
 AGGGGCCCTCNAAGTGGTGAAGTGGGGGGCTTCCCGGCCCGGTGCCACCGGCCCTCTA  
 NCTGCCTGTGCTGGGGCCAGTGTCTCTGAGGGCGCAGGGATTCTGGCCCCGCTGTACC  
 TGGCCTTGGTGGCTGCCAGGGCCAAGTAAGGAAGGTACCCTCGAGACCGGTTCCCTGT  
 GCCTAGG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_001287

**Insert Size:**

4500 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:**

A TrueClone.

**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\\_001287.3](#), [NP\\_001278.1](#)

**RefSeq Size:** 3760 bp

**RefSeq ORF:** 2418 bp

**Locus ID:** 1186

**UniProt ID:** [P51798](#)

**Cytogenetics:** 16p13.3

**Domains:** CBS, voltage\_CLC

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

**Gene Summary:** The product of this gene belongs to the CLC chloride channel family of proteins. Chloride channels play important roles in the plasma membrane and in intracellular organelles. This gene encodes chloride channel 7. Defects in this gene are the cause of osteopetrosis autosomal recessive type 4 (OPTB4), also called infantile malignant osteopetrosis type 2 as well as the cause of autosomal dominant osteopetrosis type 2 (OPTA2), also called autosomal dominant Albers-Schonberg disease or marble disease autosomal dominant. Osteopetrosis is a rare genetic disease characterized by abnormally dense bone, due to defective resorption of immature bone. OPTA2 is the most common form of osteopetrosis, occurring in adolescence or adulthood. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) represents the longer transcript, and encodes the longer isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.