

## Product datasheet for **SC320367**

### 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:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_001287.3  
 CCGGCGCTTCCCGCGGTGTCGCTCCGCGCGGGCCATGGCCAACGTCTCTAAGAAGGT  
 GTCTGTGTCGGCCGGACCGGACGACGAGGAGCGCGCCGCTGCTGCGGAGGACGGC  
 GCGGCCCGCGGGGACGCCGCTGCTGAACGGGCTGGCCTGGGGCTGCGCGCCAGTC  
 ACCACGTTCTGCGCTTTCCGAGTCGGACATATGAGCAGCGTGGAGCTGGATGATGAACT  
 TTTGGACCCGGATATGGACCCTCCACATCCCTTCCCAAGGAGATCCCACACAACGAGAA  
 GCTCCTGTCCCTCAAGTATGAGAGCTTGGACTATGACAACAGTGAGAACCAGCTGTTCT  
 GGAGGAGGAGCGCGGATCAATCACACGGCCTCCGGACGGTGGAGATCAAGCGCTGGGT  
 CATCTGCGCCCTCATTGGGATCCTCACGGGCTCGTGGCCTGCTTATTGACATCGTGGT  
 GAAAAACCTGGCTGGCCTCAAGTACAGGGTCATCAAGGGCAATATCGACAAGTTCACAGA  
 GAAGGGCGGACTGTCCTTCTCCCTGTTGCTGTGGGCCACGCTGAACGCCCTTCGTGCT  
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 GATCAAGTGCTTCTCAACGGGTGAAGATCCCCACGTGGTGGCGCTCAAGACGTTGGT  
 GATCAAAGTGCCGGTGTGATCCTGTCCGTGGTGGGGGCTGGCCGTGGGAAAGGAAGG  
 GCCGATGATCCACTCAGGTTCAAGTATTGCCCGCGGGATCTCAGGGAAGGTCAACGTC  
 ACTGAAACGAGATTTCAAGATCTTCGAGTACTTCCGCAGAGACACAGAGAAGCGGGACTT  
 CGTCTCCGAGGGGCTGCGGCCGAGTGTACGCGCGTGGAGCCCGTGGTGGGGTGGGT  
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 CATGTGGGACCTGTCCAGCCAGGCTCATCAACTTCGGAAGGTTTACTCGGAGAAAAAT  
 GGCTACACGATCCACGAGATCCCGTCTTCATCGCCATGGGCGTGGTGGCGGTGTGCT  
 TGGAGCAGTGTTCAATGCCTTGAACACTGGCTGACCATGTTTGAATCAGGTACATCCA  
 CCGGCCCTGCCTGCAGGTGATTGAGGCCGTGCTGGTGGCCGCGTCACGGCCACAGTTGC  
 CTTGCTGCTGATCTACTCGCGGGATTGCCAGCCCCTGCAGGGGGGCTCCATGTCCTA  
 CCCGCTGCAGCTTTTTGTGAGATGGCGAGTACAACCTCATGGCTGCGGCCCTTCTCAA  
 CACCCCGGAGAAGAGCGTGGTGGCCTCTCCACGACCCGCCAGGCTCCTACAACCCCT  
 GACCTCGGCTGTTACGCTGGTCTACTTCTTCTGGCTGCTGGACCTACGGGCTCAC



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GGTGTCTGCCGGGTCTTCATCCCGTCCCTGCTCATCGGGGCTGCCTGGGGCCGGCTCTT
TGGGATCTCCCTGTCTACCTCACGGGGCGGCGATCTGGGCGGACCCCGGCAAATACGC
CCTGATGGGAGCTGCTGCCAGCTGGGCGGGATTGTGCGGATGACACTGAGCCTGACCGT
CATCATGATGGAGGCCACCAGCAACGTGACCTACGGCTTCCCCATCATGTGGTGTCTAT
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GCAGAGTGTGCCCTTCTGCACTGGGAGGCCCGGTACCTCACACTCACTCACTGCCAG
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TCTTGGGAGCCAGCGGACGGGCCGACCTGCGTGCTGTGCCGTGTGCGTGAGACAGA
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ACACCAAGTGGAGTCTTCGAGACTTGGGAGCTGCTTGGCCTCATTTTCAGCCATGAGCAGA
CGGCTGTGGTCCCTGGGCCTGAGGCACGACTGTAGCACAGGGTTTGGAGGCTGCGA
CCGCCCGGAGAGCAGCTTCACACTGGCGCCACAGAGGAGCCCCACGTGCACTCCCAGG
CTGCATCCGGCTTGGGTACACGGGCCAGAGGACTGGGGTACTCACGGGCCCTGTGCTG
TGATGTTGAGAGCTGAGAAAAACCTCCAAGGCCCTGAGCCCCATGCCAGCCCTGCCTTG
GTCCCCAACCCAGAGCTTGGAGTCTGGGCCACACCCAGCCCTGCCTTGGTCCCTG
AGCCTCAGAGCGTGAATTGCTGCCCTGTGGACTGGTGGGAAGGCAGGTCTTCCCCT
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GCAGCTAGAAGGGCCGGTGGGCACCGGGCCGGGAAGCCCCACCTACCCACCTGAGGGC
CCCTGGGAGGCTCCTCTGGCCTGGCTGGGCTGGGTCTGGGGCCGGCACAGGCCCTCACG
GGGCGGACAGGGCAACTCAGTGTCCCTGTTAGAGCAACACGGGTCCCTCCGTGGGGGGC
TGGGTGCGGCCCTGCCGTGATTTCTCCCCAGGGAGTGGGGCCTCCCAGGGAGCTGA
CGCCACCACCTGCTTAGCCCTCACAGGGCCCCAAGGTGTCCGAGTGTGTGGGTCTGAA
CGCGAAATAAAGAAATCCTCTCAAAAAAAAAAAAAAAAAAAAA
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- Restriction Sites:** Please inquire
- ACCN:** NM\_001287
- 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:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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.