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Product datasheet for RC203450

CLC7 (CLCN7) (NM_001287) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CLC7 (CLCN7) (NM_001287) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CLC7
Synonyms:	CLC-7; CLC7; HOD; OPTA2; OPTB4; PPP1R63
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203450 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAACGTCTCTAAGAAGGTGTCCTGGTCCGGCCGGGACCGGGACGACGAGGAGGCGGCGCCGCTGC
TGCGGAGGACGGCGCGGCCCGGCGGGGGGACGCCGCTGCTGAACGGGGCTGGGCCTGGGGCTGCGCGCCA
GTCACCACGTTCTGCGCTTTTCCGAGTCGGACATATGAGCAGCGTGGAGCTGGATGATGAACTTTTGGAC
CCGGATATGGACCCTCCACATCCCTTCCCCAAGGAGATCCCACACAACGAGAAGCTCCTGTCCCTCAAGT
ATGAGAGCTTGGACTATGACAACAGTGAGAACCAGCTGTTCCTGGAGGAGGAGCGGCGGATCAATCACAC
GGCCTTCCGGACGGTGGAGATCAAGCGCTGGGTCATCTGCGCCCTCATTGGGATCCTCACGGGCCTCGTG
GCCTGCTTCATTGACATCGTGGTGGAAAACCTGGCTGGCCTCAAGTACAGGGTCATCAAGGGCAATATCG
ACAAGTTCACAGAGAAGGGCGGACTGTCCTTCTCCCTGTTGCTGTGGGCCACGCTGAACGCCGCCTTCGT
GCTCGTGGGCTCTGTGATTGTGGCTTTCATAGAGCCGGTGGCTGCTGGCAGCGGAATCCCCCAGATCAAG
TGCTTCCTCAACGGGGTGAAGATCCCCCACGTGGTGCGGCTCAAGACGTTGGTGATCAAAGTGTCCGGTG
TGATCCTGTCCGTGGTCGGGGGCCTGGCCGTGGGAAAGGAAGGGCCGATGATCCACTCAGGTTCAGTGAT
TGCCGCCGGGATCTCTCAGGGAAGGTCAACGTCACTGAAACGAGATTTCAAGATCTTCGAGTACTTCCGC
AGAGACACAGAGAAGCGGGACTTCGTCTCCGCAGGGGCTGCGGCCGGAGTGTCAGCGGCGTTTGGAGCCC
CCGTGGGTGGGGTCCTGTTCAGCTTGGAGGAGGGTGCGTCCTTCTGGAACCAGTTCCTGACCTGGAGGAT
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GACCTGTCCAGCCCAGGCCTCATCAACTTCGGAAGGTTTGACTCGGAGAAAATGGCCTACACGATCCACG
AGATCCCGGTCTTCATCGCCATGGGCGTGGTGGGCGGTGTGCTTGGAGCAGTGTTCAATGCCTTGAACTA
CTGGCTGACCATGTTTCGAATCAGGTACATCCACCGGCCCTGCCTGCAGGTGATTGAGGCCGTGCTGGTG
GCCGCCGTCACGGCCACAGTTGCCTTCGTGCTGATCTACTCGTCGCGGGATTGCCAGCCCCTGCAGGGGG
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CAACACCCCGGAGAAGAGCGTGGTGAGCCTCTTCCACGACCCGCCAGGCTCCTACAACCCCCTGACCCTC
GGCCTGTTCACGCTGGTCTACTTCTTCCTGGCCTGCTGGACCTACGGGCTCACGGTGTCTGCCGGGGTCT
TCATCCCGTCCCTGCTCATCGGGGCTGCCTGGGGCCGGCTCTTTGGGATCTCCCTGTCCTACCTCACGGG
GGCGGCGATCTGGGCGGACCCCGGCAAATACGCCCTGATGGGAGCTGCTGCCCAGCTGGGCGGGATTGTG
CGGATGACACTGAGCCTGACCGTCATCATGATGGAGGCCACCAGCAACGTGACCTACGGCTTCCCCATCA
TGCTGGTGCTCATGACCGCCAAGATCGTGGGCGACGTCTTCATTGAGGGCCTGTACGACATGCACATTCA
GCTGCAGAGTGTGCCCTTCCTGCACTGGGAGGCCCCGGTCACCTCACACTCACTCACTGCCAGGGAGGTG
ATGAGCACACCAGTGACCTGCCTGAGGCGGCGTGAGAAGGTCGGCGTCATTGTGGACGTGCTGAGCGACA
CGGCGTCCAATCACAACGGCTTCCCCGTGGTGGAGCATGCCGATGACACCCAGCCTGCCCGGCTCCAGGG
CCTGATCCTGCGCTCCCAGCTCATCGTTCTCCTAAAGCACAAGGTGTTTGTGGAGCGGTCCAACCTGGGC
CTGGTACAGCGGCGCCTGAGGCTGAAGGACTTCCGAGACGCCTACCCGCGCTTCCCACCCATCCAGTCCA
TCCACGTGTCCCAGGACGAGCGGGAGTGCACCATGGACCTCTCCGAGTTCATGAACCCCTCCCCCTACAC
GGTGCCCCAGGAGGCGTCGCTCCCACGGGTGTTCAAGCTGTTCCGGGCCCTGGGCCTGCGGCACCTGGTG
GTGGTGGACAACCGCAATCAGGTTGTCGGGTTGGTGACCAGGAAGGACCTCGCCAGGTACCGCCTGGGAA
AGAGAGGCTTGGAGGAGCTCTCGCTGGCCCAGACG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203450 protein sequence
Red=Cloning site Green=Tags(s)

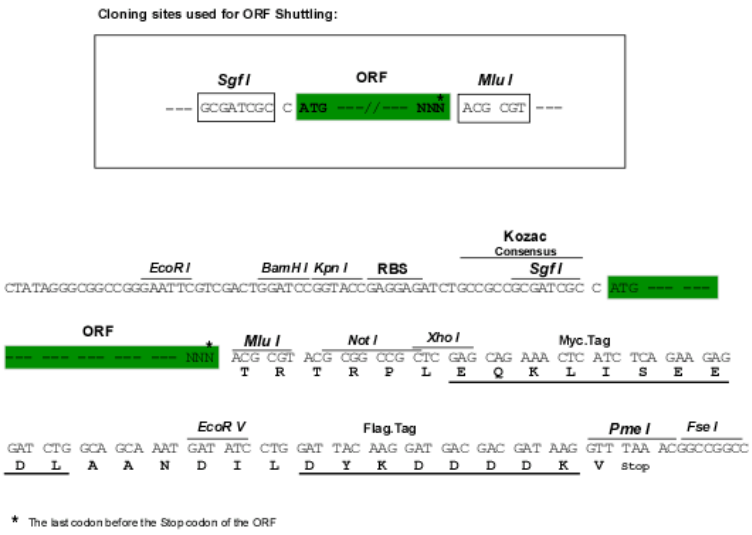
MANVSKKVSWSGRDRDDEEAAPLLRRTARPGGGTPLLNGAGPGAARQSPRSALFRVGHMSSVELDDELLD
PDMDPPHPFPKEIPHNEKLLSLKYESLDYDNSENQLFLEEERRINHTAFRTVEIKRWVICALIGILTGLV
ACFIDIVVENLAGLKYRVIKGNIDKFTEKGGLSFSLLLWATLNAAFVLVGSVIVAFIEPVAAGSGIPQIK
CFLNGVKIPHVVRLKTLVIKVSGVILSVVGGLAVGKEGPMIHSGSVIAAGISQGRSTSLKRDFKIFEYFR
RDTEKRDFVSAGAAAGVSAAFGAPVGGVLFSLEEGASFWNQFLTWRIFFASMISTFTLNFVLSIYHGNMW
DLSSPGLINFGRFDSEKMAYTIHEIPVFIAMGVVGGVLGAVFNALNYWLTMFRIRYIHRPCLQVIEAVLV
AAVTATVAFVLIYSSRDCQPLQGGSMSYPLQLFCADGEYNSMAAAFFNTPEKSVVSLFHDPPGSYNPLTL
GLFTLVYFFLACWTYGLTVSAGVFIPSLLIGAAWGRLFGISLSYLTGAAIWADPGKYALMGAAAQLGGIV
RMTLSLTVIMMEATSNVTYGFPIMLVLMTAKIVGDVFIEGLYDMHIQLQSVPFLHWEAPVTSHSLTAREV
MSTPVTCLRRREKVGVIVDVLSDTASNHNGFPVVEHADDTQPARLQGLILRSQLIVLLKHKVFVERSNLG
LVQRRLRLKDFRDAYPRFPPIQSIHVSQDERECTMDLSEFMNPSPYTVPQEASLPRVFKLFRALGLRHLV
VVDNRNQVVGLVTRKDLARYRLGKRGLEELSLAQT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6156_g06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001287

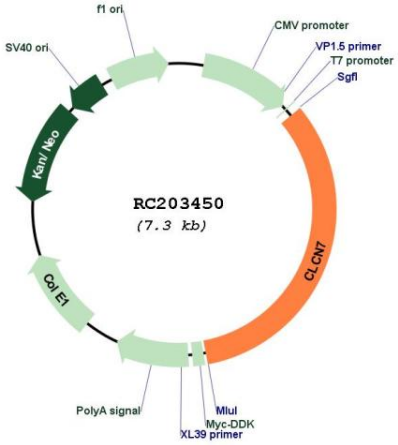
ORF Size: 2415 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

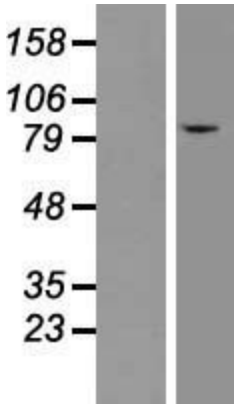
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001287.6
RefSeq Size:	4236 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
MW:	88.7 kDa
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 autosoml 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]

Product images:



Circular map for RC203450



Western blot validation of overexpression lysate (Cat# [LY420027]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203450 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).