

Product datasheet for **MR210294**

Ccnt2 (NM_028399) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ccnt2 (NM_028399) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ccnt2
Synonyms:	2900041118Rik; C81304; CycT2; CycT2a; CycT2b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR210294 representing NM_028399
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCGTCGGGCCGTGGAGCTTCTTCTCGTGGTTCTTTACTCGGAACAGCTGGAGAACACGCCGAGCC
GCCGCTGCGGAGTGGAAGCGGATGAAGAGCTGTGCATCGCCAGCAGCGGCCAACCTCATCCAGGACAT
GGGCAACGTCTCAATGTCTCTCAGCTTACAATAAACACTGCGATTGTTTATATGCACAGTTTTTATATG
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CCTGGACACAAAATGTGATGCTTATCTTCAGCAGACTCAAGAAGTGGTTTTACTTGAAACCATAATGCTA
CAAACACTGGGTTTTGAGATCACCATTGAACCCACACACAGATGTGGTGAATGCACCCAGTTAGTAA
GAGCAAGCAAGGATTTGGCACAGACATCCTATTTTCATGGCTACCAACAGTTTGCATCTTACGACCTTCTG
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GAGGGCTATGGCTAAGAAACCAAAGTAGATGGACAAGTATCAGAGACACCACTGCTTGGTTTCATCTTTG
GTCCAGAAATCTATTTTAGTAGATAGTGTCACTGGTGTACCTGCCAACCAAGCTTTAGAAACCATCAA
CATCAACGTTCCCTGCTCCAATACCTCTAAATTCAGGAAGTACTTCTGTTCAAGTAGCCGTGCATCTGA
TAATTTATCAGTGCTAGCAGCAGGAATGCCAGTACCTCATAACAGTTTGTATCACACCAAGAGTGGCC
CAGCATCCAGATTCAGCCAGGACAGACCCAGTGTACACACAGAAACAGGAGGCCACTCTCTCTGGGAGCC
AGTACATAAGCTTCCAGCAGGGACCTTCAATGGCACTGCATTCTGGATTACATCACAGCCGGGACAAAGT
TGCTGATCATTATCAGCTAAGCAAGAATACTCACAAGCTGGGAGCAGTAAACACCATGGTCCCATATA
CCTGCTACTCCTGGAATGCTTCCCTCAGAAAATGTCTTTAGATAAGTACAGAGAGAAGCGGAAGCTGGAAA
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CCTGAGAAACACGTGGCAGAGAAAAGGAGAGGAGTGGATCACTGAAGCTCCGCATTCCTATCCCCCGC
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AGTTCCAAAAGTGCAGGTAGTTCATCTAGTTCTTCTCTGTTAAGCAGTATCTATCCTCTCACAGCTCTG
TTTTTAACCATCCCTTACCCCTCCTCCCTGTACATACCAGGTGGGTACGGACATCTCAGCACCTC
CGTGAAGTGGACAAGAAACAGTGGAGCCCCACGGTCTGAGGCCAATCACGAGTACAGTACAAGCAGC
CAGCATATGGACTACAAAGACACATTGACATGCTGGACTCGCTGCTAAGTGCCCAAGGAATGAATATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210294 representing NM_028399
Red=Cloning site Green=Tags(s)

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MASGRGASSRWFFTREQLENTPSRRCGVEADEELSHRQQAANLIQDMGQRLNVSQLTINTAIVYMHRFYM
HHSFTKFNRIISPTALFLAAKVEEQARKLEHVIKVAHAHLPLEPLLDTKCDAYLQQTQELVLETIML
QTLGFEITIEHPHTDVVKCTQLVRASKDLAQTSYFMATNSLHLTTFCLQYKPTVIACVCIHLACKWSNWE
IPVSTDGKHWWEYVDPTVTLELLEDELTHEFLQILEKTPSRLKRIRNWRAMAKPKVDGQVSETPLLGSLL
VQNSILVDSVTGVPANPSFQKPSTSTFPAPIPLNSGSTSVQDSRASDNL SVLAAGMPSTSYSLSSHQEW
QHPDSARTDPVYTQKQEATLSGSQYISFQQGSMALHSGLHHRPDKVADHSSAKQEYTHKAGSSKHHGPI
PATPGMLPQKMSLDKYREKRKLETLDVDTRDHYLAAHAEQQHKHGAQAVTGTSVTSPIKMKLPLTNSDR
PEKHVAEKERSGSLKLRIPPPDKGPSKEELKMKIKVASSERHSSSDESGSKSHSSPHISRDKHKEK
KEHPANRHHSSHKYLHMHSGSKHTADGMPPTVLRSPVGLGPEGVSSASSARKKLHSSEASHNHHSKMSK
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QHMDYKDTFDMLDSLSSAQGMNM
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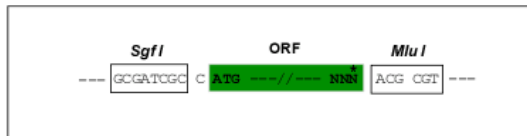
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9096_d04.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_028399

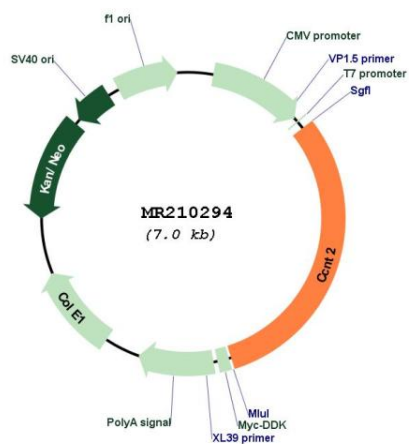
ORF Size: 2169 bp

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:	<ol style="list-style-type: none">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:	<u>NM_028399.1</u> , <u>NP_082675.1</u>
RefSeq Size:	3514 bp
RefSeq ORF:	2172 bp
Locus ID:	72949
UniProt ID:	<u>Q7TQK0</u>
Cytogenetics:	1 E3
MW:	80.3 kDa
Gene Summary:	Regulatory subunit of the cyclin-dependent kinase pair (CDK9/cyclin T) complex, also called positive transcription elongation factor B (P-TEFB), which is proposed to facilitate the transition from abortive to production elongation by phosphorylating the CTD (carboxy-terminal domain) of the large subunit of RNA polymerase II (RNAP II). The activity of this complex is regulated by binding with 7SK snRNA (By similarity). Plays a role during muscle differentiation; P-TEFB complex interacts with MYOD1; this tripartite complex promotes the transcriptional activity of MYOD1 through its CDK9-mediated phosphorylation and binds the chromatin of promoters and enhancers of muscle-specific genes; this event correlates with hyperphosphorylation of the CTD domain of RNA pol II (PubMed:16245309, PubMed:23060074, PubMed:12037670). In addition, enhances MYOD1-dependent transcription through interaction with PKN1 (By similarity). Involved in early embryo development (PubMed:19364821).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210294