

Product datasheet for **MG210294**

Ccnt2 (NM_028399) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ccnt2 (NM_028399) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ccnt2
Synonyms:	2900041118Rik; C81304; CycT2; CycT2a; CycT2b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210294 representing NM_028399
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGTCGGGCCGTGGAGCTTCTTCTCGTGGTTCTTTACTCGGAACAGCTGGAGAACACGCCGAGCC
 GCCGCTGCGGAGTGGAAGCGGATGAAGAGCTGTGCATCGCCAGCAGCGGCCAACCTCATCCAGGACAT
 GGGCAACGTCTCAATGTCTCTCAGCTTACAATAAACACTGCGATTGTTTATATGCACAGTTTTTATATG
 CACCATTCTTACCAAATTCACAGAAATATAATATCACCTACTGCATTGTTTTGGTGCAAAAGTGG
 AAGAGCAGGCTCGAAAGCTTGAACATGTTATCAAAGTAGCACACGCTTGTCTTACCCCTAGAGCCACT
 CCTGGACACAAAATGTGATGCTTATCTTCAGCAGACTCAAGAAGTGGTTTTACTTGAAACCATAATGCTA
 CAAACTGGGTTTTGAGATCACCATTGAACCCACACAGATGTGGTGAATGCACCCAGTTAGTAA
 GAGCAAGCAAGGATTTGGCACAGACATCTATTTTCATGGCTACCAACAGTTTGCATCTTACGACCTTCTG
 TCTTCAGTACAAACCCACAGTATAGCATGTGTATGCATTCAATTTGGCTTGCAAATGGTCCAATTTGGGAG
 ATTCTGTGTCAACAGATGGAAAGCACTGGTGGGAGTATGTGGACCCACGGTTACCTAGAGCTGCTAG
 ATGAACTAACACATGAGTTTCTACAAATATTGGAGAAAACGCCTAGTAGGTTGAAGAGGATTCGAAACTG
 GAGGGCTATGGCTAAGAAACCAAAGTAGATGGACAAGTATCAGAGACACCACTGCTTGGTTTCATCTTTG
 GTCCAGAAATCTATTTTAGTAGATAGTGTCACTGGTGTACCTGCCAACCAAGCTTTAGAAACCATCAA
 CATCAACGTTCCCTGCTCCAATACCTCTAAATTCAGGAAGTACTTCTGTTCAAGTAGCCGTGCATCTGA
 TAATTTATCAGTGTAGCAGCAGGAATGCCAGTACCTCATAACAGTTTGTATCACACCAAGAGTGGCC
 CAGCATCCAGATTCAGCCAGGACAGACCCAGTGTACACACAGAAACAGGAGGCCACTCTCTCTGGGAGCC
 AGTACATAAGCTTCCAGCAGGGACCTTCAATGGCACTGCATTCTGGATTACATCACAGCCGGACAAAGT
 TGCTGATCATTATCAGCTAAGCAAGAATACTCACAAGCTGGGAGCAGTAAACACCATGGTCCATA
 CCTGCTACTCCTGGAATGCTTCTCAGAAAATGTCTTTAGATAAGTACAGAGAGAAGCGGAAGCTGGAAA
 CCCTTGACGTGGACACAAGGGATCACTATCTAGCTGCCATGCAGAACAGCAGCACAAGCATGGGCCGGC
 TCAGGCAGTCACGGGCACTTCTGTCACTTCTCCCATCAAGATGAAGCTCCCCCTACCAACTCGGACAGG
 CCTGAGAAACACGTGGCAGAGAAAAGGAGAGGAGTGGATCACTGAAGCTCCGCATTCCTATCCCCCGC
 CTGACAAAGTCCAGCAAAGAGGAGCTGAAGATGAAAATCAAAGTGGCATCCTCGGAAAGACACAGCTC
 TTCTGATGAAGGCAGTGGGAAGAGCAAGCACTCAAGCCACACATCAGCAGAGACCACAAGGAGAAGCAC
 AAGGAGCACCTGCCAACCGCCACCACAGCAGCCACAAGTATTTGCACATGCACAGTGGAGGCAGTAAGC
 ACACAGCGGATGGAATGCCTCCACGGTCTCAGGAGTCTGTGGGCCTGGGCCCTGAAGGCGTCTCCTC
 CGCTCCAGTGAAGGAAGAAGCTGCATAGCAGCGAAGCCTCCCAACCACTCCAAAATGAGCAAA
 AGTTCCAAAAGTGCAGGTAGTTCATCTAGTTCTTCTCTGTTAAGCAGTATCTATCCTCTCACAGCTCTG
 TTTTAAACCATCCCTTACCCCTCCTCCCCCTGTACATACCAGGTGGGCTACGGACATCTCAGCACCTC
 CGTGAAGTGGACAAGAAACAGTGGAGCCCCACGGTCTGAGGCCAATCACGAGTACAGTACAAGCAGC
 CAGCATATGGACTACAAAGACACATTGACATGCTGGACTCGCTGCTAAGTGCCCAAGGAATGAATATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210294 representing NM_028399
 Red=Cloning site Green=Tags(s)

MASGRGASSRWFFTREQLENTPSRRCGVEADEELSHRQQAANLIQDMGQRLNVSQLTINTAIVYMHRFYM
 HHSFTKFNRNII SPTALFLAAKVEEQARKLEHVIKVAHAACHPLEPLLDTKCDAYLQQTQELVLLLETIML
 QTLGFEITIEHPHTDVVKCTQLVRASKDLAQTSYFMATNSLHLTTFCLQYKPTVIACVCIHLACKWSNWE
 IPVSTDGKHWWEYVDPTVTLELLDELTHEFLQILEKTPSRLKRIRNRAMAKPKVDGQVSETPLLGSLL
 VQNSILVDSVTGVPANPSFQKPSTSTFPAPIPLNSGSTSVDQSRASDNL SVLAAGMPSTSYSLSSHQEW
 QHPDSARTDPVYTQKQEA T LSGSQYISFQQGSMALHSGLHHRPDKVADHSSAKQEYTHKAGSSKHHGPI
 PATPGMLPQKMSLDKYREKRKLETLDVDTRDHYLAAHAEQQHKHGPAAVGTGTSVTSPIKMKLPLTNSDR
 PEKHVAEKERSGSLKLRIPPPDKGPSKEELKMKIKVASSERHSSSDEGSGSKHSSPHISRDKHKKH
 KEHPANRHSSHKYLHMHSGGSKHTADGMPPTVLRSPVGLGPEGVSSASSARKKLHSSEASHNHHSKMSK
 SSKSAGSSSSSSSVKQYLSHSSVFNHPLPPPPVTVYQVGYGHLSTLVKLDKKPVEPHGPEANHEYSTSS
 QHMDYKDTFDMLDSLSSAQGMNM

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:

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_028399.1](#), [NP_082675.1](#)

RefSeq Size: 3514 bp

RefSeq ORF: 2172 bp

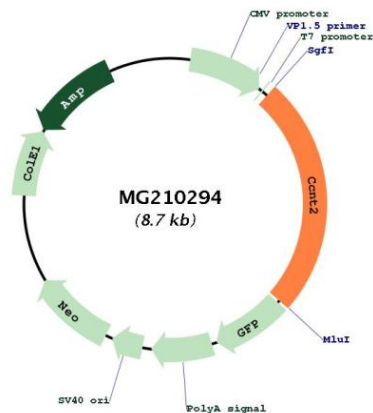
Locus ID: 72949

UniProt ID: [Q7TQK0](#)

Cytogenetics: 1 E3

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 MG210294