

## Product datasheet for **RG214170**

### Cyclin T2 (CCNT2) (NM\_058241) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cyclin T2 (CCNT2) (NM_058241) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cyclin T2
Synonyms:	CYCT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG214170 representing NM\_058241  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGTCGGGCCGTGGAGCTTCTTCTCGTGGTTCTTTACTCGGAACAGCTGGAGAACACGCCGAGCC  
 GCCGCTGCGGAGTGGAGGCGGATAAAGAGCTCTGTGCCGCCAGCAGCGGCCAACTCATCCAGGAGAT  
 GGGACAGCGTCTCAATGTCTCTCAGCTTACAATAAACACTGCGATTGTTTATATGCACAGGTTTTATATG  
 CACCATTCTTTCACCAAATTCACAAAAATAATATCGTCTACTGCATTATTTTTGGTGCAAAAGTGG  
 AAGAACAGGCTCGAAAATTGAACATGTTATCAAAGTAGCACATGCTTGTCTTCACTAGAGCCACT  
 GCTGGATACTAAATGTGATGCTTACCTTCAACAGACTCAAGAAGTGGTTACTTGAAACCATAATGCTA  
 CAAACTCTAGGTTTTGAGATCACCATTGAACCCACACAGATGTGGTGAATGTACCCAGTTAGTAA  
 GAGCAAGCAAGGATTTGGCACAGACATCTATTTTCATGGCTACCAACAGTCTGCATCTTACAACCTTCTG  
 TCTTCAGTACAAACCAACAGTATAGCATGTGTATGCATTCAATTTGGCTTGCAAAATGGTCCAATTTGGGAG  
 ATCCCTGTATCAACTGATGGAAAGCATTGGTGGGAATATGTGGATCCTACAGTACTCTAGAATTATTAG  
 ATGAGCTAACACATGAGTTTCTACAAATATTGGAGAAAACGCCTAATAGTTGAAGAAGATTCGAAACTG  
 GAGGGCTAATCAGGCAGCTAGGAAACAAAAGTAGATGGACAGGTATCAGAGACACCACTTCTTGGTTCA  
 TCTTTGGTCCAGAATTCATTTTAGTAGATAGTGTCACTGGTGTGCCTACAAACCAAGTTTTGAGAAAC  
 CATCTACATCAGCATTCCCTGCGCCAGTACCTCTAAATTCAGGAAATATTTCTGTTCAAGACAGCCATAC  
 ATCTGATAATTTGTCAATGCTAGCAACAGGAATGCCAAGTACTTCATACGGTTTATCATCACACCAGGAA  
 TGGCCTCAACATCAAGACTCAGCAAGGACAGAACAGCTATATTCACAGAAACAGGAGACATCTTTGTCTG  
 GTAGCCAGTACAACATCAACTTCCAGCAGGGACCTTCTATCACTGCATTTCAGGATTACATCACACCAG  
 TGACAAAATTTTCAGATCATTCTTCTGTTAAGCAAGAATACTCATAAAGCAGGGAGCAGTAAACACCAT  
 GGGCCAATTTCCACTACTCCAGGAATAATTCCTCAGAAAATGTCTTTAGATAAATATAGAGAAAAGCGTA  
 AACTAGAAACTCTTGATCTCGATGTAAGGGATCATTATATAGCTGCCAGGTAGAACAGCAGCACAAAACA  
 AGGGCAGTCACAGGCAGCCAGCAGCAGTTCTGTTACTTCTCCATTAAAAATGAAAATACCTATCGCAAAT  
 ACTGAAAATACATGGCAGACAAAAGGAAAAGAGTGGGTCACTGAAATACGGATTCCAATACCACCCA  
 CTGATAAAAGCGCCAGTAAAGAAGAACTGAAAATGAAAATAAAAGTTTCTTCTCAGAAAGACACAGCTC  
 TTCTGATGAAGGCAGTGGGAAGAGCAAACATTCAAGCCACATATTAGCAGAGACCATAAGGAGAAGCAC  
 AAGGAGCATCCTTCAAGCCGCCACCACACCAGCAGCCACAAGCATTCCCCTCGCATAGTGGCAGCAGCA  
 GCGGTGGCAGTAAACACAGTGCCGACGGAATACCACCCACTGTTCTGAGGAGTCCGTGTGGCCTGAGCAG  
 TGATGGCATTTCCTCTAGCTCCAGCTCTTCAAGGAAGAGGCTGCATGTCATGATGCATCTCACAAACC  
 CACTCCAAAATGAGCAAAAGTTCCAAAAGTTTCAGGTAGTTCATCTAGTCTTCTCCTCTGTAAAGCAGT  
 ATATATCTCTCACAACTCTGTTTTAACCATCCCTTACCCCTCCTCCCCTGTACATACCAGGTGGG  
 CTACGGACATCTCAGCACCCTCGTGAACCTGGACAAGAAGCCAGTGGAGACCAACGGTCTGTATGCCAAT  
 CACGAGTACAGTACAAGCAGCCAGCATATGGACTACAAAGACACATTCGACATGCTGGACTCACTGTTAA  
 GTGCCAAGGAATGAACATG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG214170 representing NM\_058241  
Red=Cloning site Green=Tags(s)

```
MASGRGASSRWFFTREQLENTPSRRCGVEADKELSCRQQAANLIQEMGQRLNVSQLTINTAIVYMHRFYM
HHSFTKFNKNIISSTALFLAAKVEEQARKLEHVIVKVAHACLHPLEPLLDTKCDAYLQQTQELVILETIML
QTLGFEITIEHPHTDVVKCTQLVRASKDLAQTSYFMATNSLHLTTFCLQYKPTVIACVCIHLACKWSNWE
IPVSTDGKHWWEYVDPTVTLELLDELTHEFLQILEKTPNRLKKIRNWRANQAARKPKVDGQVSETPLLGS
SLVQNSILVDSVTGVPTNPSFQKPSTSAFPAPVPLNSGNI SVQDSHTSDNLSMLATGMPSTSYGLSSHQE
WPOHQDSARTEQLYSQKQETSLSGSQYNINFQQGPSISLHSGLHHRPDKISDHSSVKQEYTHKAGSSKHH
GPISTTPGIIPQKMSLDKYREKRKLETLDLDRDHYIAAQVEQQHKQGQSQAAASSSVTSPHKMPIAN
TEKYMADKKEKSGSLKLRIPPTDKSASKEELKMKIKVSSSERHSSSDEGSGSKHSSPHISRDKHKEH
KEHPSSRHHTSSHKHSHSHSGSSSGSKHSADGIPPTVLRSPVGLSSDGISSSSSSSRKRLHVNDASHNH
HSKMSKSSKSSGSSSSSSSVKQYISSHNSVFNHPLPPPPPVTYQVGYGHLSTLVKLDKKPVETNGPDAN
HEYSTSSQHMDYKDTFDMLDSLISAQGMNM
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_058241

**ORF Size:** 2190 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\\_058241.3](#)

**RefSeq Size:** 6923 bp

**RefSeq ORF:** 2193 bp

**Locus ID:** 905

**UniProt ID:** [O60583](#)

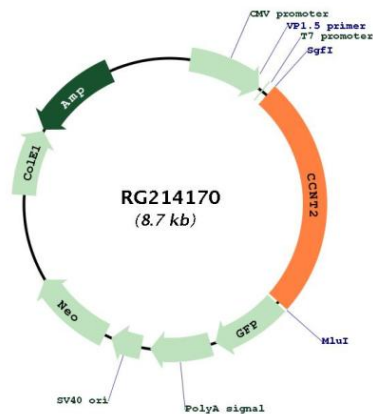
**Cytogenetics:** 2q21.3

**Domains:** CYCLIN, cyclin

**Protein Families:** Druggable Genome, Transcription Factors

**Gene Summary:** The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin and its kinase partner CDK9 were found to be subunits of the transcription elongation factor p-TEFb. The p-TEFb complex containing this cyclin was reported to interact with, and act as a negative regulator of human immunodeficiency virus type 1 (HIV-1) Tat protein. A pseudogene of this gene is found on chromosome 1. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Dec 2010]

## Product images:



Circular map for RG214170