

Product datasheet for **RG225674**

Cyclin A1 (CCNA1) (NM_001111047) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cyclin A1 (CCNA1) (NM_001111047) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CCNA1
Synonyms:	CT146
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG225674 representing NM_001111047
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAGACCGGCTTTCCGCAATCATGTACCCTGGATCTTTTATTGGGGCTGGGGAGAAGAGTATCTCA
 GCTGGGAAGGACCGGGCTCCCAGATTTCTGCTCCAGCAGCCCGTGGAGTCTGAAGCAATGCACCTGCAG
 CAACCCCAAGAGTGGAGTTGTGCTGGCTACAGTGGCCGAGGTCCCGATGCTTGTGAGATACTCACCAGA
 GCCCCGCTGGCCAGGATCCCCGCAGAGGACAGTGTAGGGCTGCTAACTGCAAATGGGCAGTACAGGA
 GGACCTGTGGCCAGGGATCACAAGAATCAGGTGTTATTCTGGATCAGAAAATGCCTTCCCTCCAGCTGG
 AAAGAAAGCACTCCCTGACTGTGGGTCCAAGAGCCCCCAAGCAAGGGTTTGACATCTACATGGATGAA
 CTAGAGCAGGGGACAGAGACAGCTGCTCGGTGAGAGGGGATGGCATTGAGGATGTGTATGAAGTAG
 ACACCGGCACACTCAAGTCAGACCTGCCTTCTGCTGGATTTCAACACAGTTTCCCTATGCTGGTAGA
 TTCATCTCTCTCTCCAGTCTGAAGATATATCCAGTCTTGGCACAGATGTGATAAATGTGACTGAATAT
 GCTGAAGAAATTTATCAGTACCTTAGGGAAGCTGAAATAAGGCACAGACCCAAAGCACACTACATGAAGA
 AGCAGCCAGACATCACGGAAGGCATGCGCACGATTCTGGTGGACTGGCTGGTGGAGTTGGGGAAGAATA
 TAAACTTCGAGCAGAGACCCTGTATCTGGCTGTCAACTTCTGGACAGGTTCTTTTCATGTATGTCTGTT
 CTGAGAGGGAAATGCAGCTCGTAGGAACAGCAGCTATGCTTTTGGCTTCGAAATATGAAGAGATATATC
 CTCCTGAAGTAGACGAGTTTGTCTATATCACCGATGATACATACAAAAACGACAACCTGTTAAAAATGGA
 ACACCTTGCTTCTGAAAGTTCTAGCTTTTGTCTGACAGTACCAACCACCAACAGTTTCTCCTTCAGTAC
 TTGAGGCGACAAGGAGTGTGCGTCAGGACTGAGAACCTGGCTAAGTACGTAGCAGAGCTGAGTCTACTTG
 AAGCAGATCCATTCTTGAATATCTTCTTCACTGATAGCTGCAGCAGCTTTTTTGCTGGCAAACATAAC
 TGTGAACAAGCACTTTTGGCCAGAAACCTTGTGCAATTTACAGGATTCATTAAAGTGAATTTGTGCTT
 TGCTGAGTGAGCTTCATAAAGCGTACCTTGATATACCCCATCGACCTCAGCAAGCAATTAGGGAGAAGT
 ACAAGGCTTCAAAGTACCTGTGTGTGCCCTCATGGAGCCACCTGCAGTCTTCTTCTACAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG225674 representing NM_001111047
 Red=Cloning site Green=Tags(s)

METGFPAIMYPGSFIGGWGEEYLSWEGPGLPDFVFQQPVESEAMHCSNPKSGVVLATVARGPDACQILTR
 APLGQDPPQRTVLGLLTANGQYRRTCGQGITRIRCYSSENAFPPAGKKALPDCGVQEPKQGFDIYMDE
 LEQGDRESCSVREGMAFEDVYVDGTGLKSDLHFLDFNTVSPMLVDSSLLSQSEDISSLGTDVINVTEY
 AEEIYQYLREAEIRHRPKAHYMKKQPDITEGMRTILVDWLVEVGEEYKLAETLYLAVNFLDRFLSCMSV
 LRGKQLQLVGTAAMLLASKYEEIYPPEVDEFVYITDDTYTKRQLLMEHLLKVLAFDLTVPTTNQFLLQY
 LRRQGVCRVTENLAKYVAELSLLEADPFLKYLPSLIAAAAFCLANYTVNKHFWPETLAAFTGYSLSEIVP
 CLSELHKAYLDIPHRPQQAIREKYKASKYL CVSLMEPPAVLLLQ

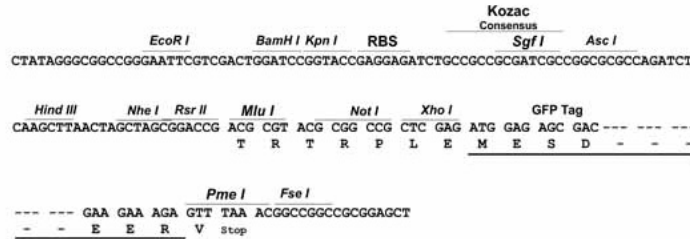
TRTRPLE - GFP Tag - V

Restriction Sites:

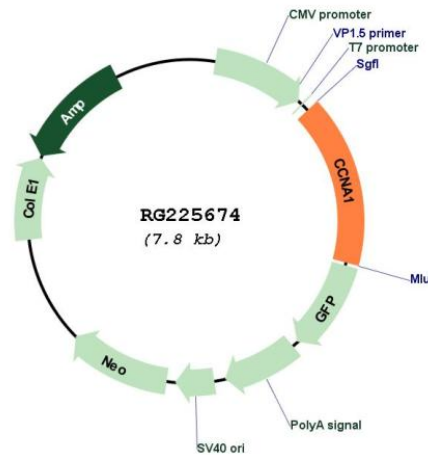
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001111047

ORF Size: 1395 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_001111047.1</u> , <u>NP_001104517.1</u>
RefSeq Size:	1841 bp
RefSeq ORF:	1266 bp
Locus ID:	8900
UniProt ID:	<u>P78396</u>
Cytogenetics:	13q13.3
Protein Families:	Druggable Genome
Protein Pathways:	Acute myeloid leukemia, Cell cycle, Pathways in cancer, Progesterone-mediated oocyte maturation
Gene Summary:	<p>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. The cyclin encoded by this gene was shown to be expressed in testis and brain, as well as in several leukemic cell lines, and is thought to primarily function in the control of the germline meiotic cell cycle. This cyclin binds both CDK2 and CDC2 kinases, which give two distinct kinase activities, one appearing in S phase, the other in G2, and thus regulate separate functions in cell cycle. This cyclin was found to bind to important cell cycle regulators, such as Rb family proteins, transcription factor E2F-1, and the p21 family proteins. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p>