

## Product datasheet for **SC317199**

### Cyclin A1 (CCNA1) (NM\_001111047) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cyclin A1 (CCNA1) (NM_001111047) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cyclin A1
Synonyms:	CT146
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001111047, the custom clone sequence may differ by one or more nucleotides ATGCACTGCAGCAACCCCAAGAGTGGAGTTGTGCTGGCTACAGTGGCCCGAGGTCCCGAT GCTTGT CAGATACTACCAGAGCCCGCTGGGCCAGGATCCCCGCAGAGGACAGTGCTA GGGCTGCTAACTGCAAATGGGCAGTACAGGAGGACCTGTGGCCAGGGGATCACAAGAATC AGGTGTTATTCTGGATCAGAAAATGCCTTCCCTCCAGTGGAAAGAAAGCACTCCCTGAC TGTGGGGTCCAAGAGCCCCCAAGCAAGGGTTTGACATCTACATGGATGAACTAGAGCAG GGGACAGAGACAGCTGCTCGGT CAGAGAGGGGATGGCATTGAGGATGTGTATGAAGTA GACACCGGCACACTCAAGTCAGACCTGCACTTCCCTGCTGGATTTCAACACAGTTTCCCCT ATGCTGGTAGATTCATCTCTCCTCTCCAGTCTGAAGATATATCCAGTCTTGGCAGAGAT GTGATAAATGTGACTGAATATGCTGAAGAAATTTATCAGTACCTTAGGGAAGCTGAAATA AGGCACAGACCCAAAGCACACTACATGAAGAAGCAGCCAGACATCACGGAAGGCATGCGC ACGATTCTGGTGGACTGGCTGGTGGAGGTTGGGGAAAGAAATAAACTTCGAGCAGAGACC CTGTATCTGGCTGTCAACTTCCCTGGACAGGTTCCCTTTCATGTATGTCTGTTCTGAGAGGG AAACTGCAGCTCGTAGGAACAGCAGCTATGCTTTTGGCTTCGAAATATGAAGAGATATAT CCTCCTGAAGTAGACGAGTTTGTCTATATCACCGATGATACATACACAAAACGACAACCTG TTAAAAATGGAACACTTGCTTCTGAAAGTTCTAGCTTTTGTATCTGACAGTACCAACCACC AACCCAGTTTCTCCTTTCAGTACTTGAGGGCACAAGGAGTGTGCGTCAGGACTGAGAACCTG GCTAAGTACGTAGCAGAGCTGAGTCTACTTGAAGCAGATCCATTCTTGAATATCTTCT TCACTGATAGCTGCAGCAGCTTTTTGCCTGGCAAATACTGTGAACAAGCACTTTTGG CCAGAAACCCCTTGTGCAATTTACAGGGTATTCATTAAGTAAAATTGTGCCTTGCCTGAGT GAGCTTCATAAAGCGTACCTTGATATACCCCATCGACCTCAGCAAGCAATTAGGGAGAAG TACAAGGCTTCAAAGTACCTGTGTGTGCCCTCATGGAGCCACCTGCAGTCTTCTTCTA CAA
Restriction Sites:	Please inquire
ACCN:	NM_001111047



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_001111047.1</a></u> , <u><a href="#">NP_001104517.1</a></u>
<b>RefSeq Size:</b>	1841 bp
<b>RefSeq ORF:</b>	1266 bp
<b>Locus ID:</b>	8900
<b>UniProt ID:</b>	<u><a href="#">P78396</a></u>
<b>Cytogenetics:</b>	13q13.3
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Acute myeloid leukemia, Cell cycle, Pathways in cancer, Progesterone-mediated oocyte maturation

**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. 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]

Transcript Variant: This variant (4) contains a distinct 5' UTR, lacks an in-frame portion of the 5' coding region, and uses an alternate in-frame splice site in the 5' coding region, compared to variant 1. Transcript variants 3 and 4 encode isoform c, which has a shorter N-terminus when compared to isoform a.