

Product datasheet for SC317203

OriGene Technologies, Inc.

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Cyclin A1 (CCNA1) (NM 001111045) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Cyclin A1 (CCNA1) (NM_001111045) Human Untagged Clone

Tag: Tag Free CCNA1 Symbol: Synonyms: CT146

Vector: pCMV6 series

>NCBI ORF sequence for NM_001111045, the custom clone sequence may differ by one or **Fully Sequenced ORF:**

more nucleotides

ATGGAGACCGGCTTTCCCGCAATCATGTACCCTGGATCTTTTATTGGGGGCTGGGGAGAA GAGTATCTCAGCTGGGAAGGACCGGGGCTCCCAGATTTCGTCTTCCAGCAGCCCGTGGAG TCTGAAGCAATGCACTGCAGCAACCCCAAGAGTGGAGTTGTGCTGGCTACAGTGGCCCGA GGTCCCGATGCTTGTCAGATACTCACCAGAGCCCCGCTGGGCCAGGATCCCCCGCAGAGG ACAGTGCTAGGGCTGCTAACTGCAAATGGGCAGTACAGGAGGACCTGTGGCCAGGGGATC CTCCCTGACTGTGGGGTCCAAGAGCCCCCCAAGCAAGGGTTTGACATCTACATGGATGAA CTAGAGCAGGGGGACAGACAGCTGCTCGGTCAGAGAGGGGATGGCATTTGAGGATGTG TATGAAGTAGACACCGGCACACTCAAGTCAGACCTGCACTTCCTGCTGGATTTCAACACA GTTTCCCCTATGCTGGTAGATTCATCTCTCCTCTCCCAGTCTGAAGATATATCCAGTCTT GGCACAGATGTGATAAATGTGACTGAATATGCTGAAGAAATTTATCAGTACCTTAGGGAA GCTGAAATAAGGCACAGACCCAAAGCACACTACATGAAGAAGCAGCCAGACATCACGGAA GGCATGCGCACGATTCTGGTGGACTGGCTGGTGGAGGTTGGGGAAGAATATAAACTTCGA CTGAGAGGGAAACTGCAGCTCGTAGGAACAGCAGCTATGCTTTTGGCTTCGAAATATGAA CGACAACTGTTAAAAATGGAACACTTGCTTCTGAAAGTTCTAGCTTTTGATCTGACAGTA CCAACCACCAGCTTTCTCCTTCAGTACTTGAGGCGACAAGGAGTGTGCGTCAGGACT GAGAACCTGGCTAAGTACGTAGCAGAGCTGAGTCTACTTGAAGCAGATCCATTCTTGAAA TATCTTCCTTCACTGATAGCTGCAGCAGCTTTTTGCCTGGCAAACTATACTGTGAACAAG CACTTTTGGCCAGAAACCCTTGCTGCATTTACAGGGTATTCATTAAGTGAAATTGTGCCT AGGGAGAAGTACAAGGCTTCAAAGTACCTGTGTGTCCCTCATGGAGCCACCTGCAGTT CTTCTTCTACAA

Restriction Sites: Please inquire ACCN: NM 001111045





Cyclin A1 (CCNA1) (NM_001111045) Human Untagged Clone - SC317203

OTI Disclaimer: 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).

OTI Annotation: 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.

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: <u>NM 001111045.1</u>, <u>NP 001104515.1</u>

 RefSeq Size:
 1962 bp

 RefSeq ORF:
 1395 bp

 Locus ID:
 8900

 UniProt ID:
 P78396

Cytogenetics: 13q13.3

Protein Families: Druggable Genome

Protein Pathways: 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 (2) uses an alternate in-frame splice site in the 5' coding region, compared to variant 1, resulting in a protein (isoform b) that is 1 amino acid shorter than isoform a.