

Product datasheet for RC225673L3

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Cyclin A1 (CCNA1) (NM_001111046) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Tag: Myc-DDK

Symbol: Cyclin Al

Synonyms: CT146

Mammalian Cell Puromycin

Selection:

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide Sequence: The ORF insert of this clone is exactly the same as(RC225673).

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



			Kozak Consensus	
EcoR I	BamH I	RBS	Sgf I	ORF
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG				
	Mlu I	Not I <u>Xho I</u>	Myc.Tag	
NNŇ		CGG CCG CTC GAG	CAG AAA CTC ATC	TCA GAA GAG
	TRT	R P L <u>E</u>	QKLI	S E E
DDK.Tag				
GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TGGGTAGGAAG				
DL A A N D I	L DYK	D D D D K	_ v	

st The last codon before the Stop codon of the ORF.

ACCN: NM_001111046

ORF Size: 1392 bp





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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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um

filter is required.

RefSeq: <u>NM_001111046.1</u>, <u>NP_001104516.1</u>

RefSeq Size: 1844 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

MW: 52.2 kDa





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]