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Product datasheet for RC204289

Cyclin E1 (CCNE1) (NM_001238) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cyclin E1 (CCNE1) (NM_001238) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cyclin E1
Synonyms:	CCNE; pCCNE1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204289 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCGAGGGAGCGCAGGGAGCGGGATGCGAAGGAGCGGGACACCATGAAGGAGGACGGCGGCGCGGAGT
TCTCGGCTCGCTCCAGGAAGAGGAAGGCAAACGTGACCGTTTTTTTGCAGGATCCAGATGAAGAAATGGC
CAAAATCGACAGGACGGCGAGGGACCAGTGTGGGAGCCAGCCTTGGGACAATAATGCAGTCTGTGCAGAC
CCCTGCTCCCTGATCCCCACACCTGACAAAGAAGATGATGACCGGGTTTACCCAAACTCAACGTGCAAGC
CTCGGATTATTGCACCATCCAGAGGCTCCCCGCTGCCTGTACTGAGCTGGGCAAATAGAGAGGAAGTCTG
GAAAATCATGTTAAACAAGGAAAAGACATACTTAAGGGATCAGCACTTTCTTGAGCAACACCCTCTTCTG
CAGCCAAAAATGCGAGCAATTCTTCTGGATTGGTTAATGGAGGTGTGTGAAGTCTATAAACTTCACAGGG
AGACCTTTTACTTGGCACAAGATTTCTTTGACCGGTATATGGCGACACAAGAAAATGTTGTAAAAACTCT
TTTACAGCTTATTGGGATTTCATCTTTATTTATTGCAGCCAAACTTGAGGAAATCTATCCTCCAAAGTTG
CACCAGTTTGCGTATGTGACAGATGGAGCTTGTTCAGGAGATGAAATTCTCACCATGGAATTAATGATTA
TGAAGGCCCTTAAGTGGCGTTTAAGTCCCCTGACTATTGTGTCCTGGCTGAATGTATACATGCAGGTTGC
ATATCTAAATGACTTACATGAAGTGCTACTGCCGCAGTATCCCCAGCAAATCTTTATACAGATTGCAGAG
CTGTTGGATCTCTGTGTCCTGGATGTTGACTGCCTTGAATTTCCTTATGGTATACTTGCTGCTTCGGCCT
TGTATCATTTCTCGTCATCTGAATTGATGCAAAAGGTTTCAGGGTATCAGTGGTGCGACATAGAGAACTG
TGTCAAGTGGATGGTTCCATTTGCCATGGTTATAAGGGAGACGGGGAGCTCAAAACTGAAGCACTTCAGG
GGCGTCGCTGATGAAGATGCACACAACATACAGACCCACAGAGACAGCTTGGATTTGCTGGACAAAGCCC
GAGCAAAGAAAGCCATGTTGTCTGAACAAAATAGGGCTTCTCCTCTCCCCAGTGGGCTCCTCACCCCGCC
ACAGAGCGGTAAGAAGCAGAGCAGCGGGCCGGAAATGGCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC204289 protein sequence
Red=Cloning site Green=Tags(s)

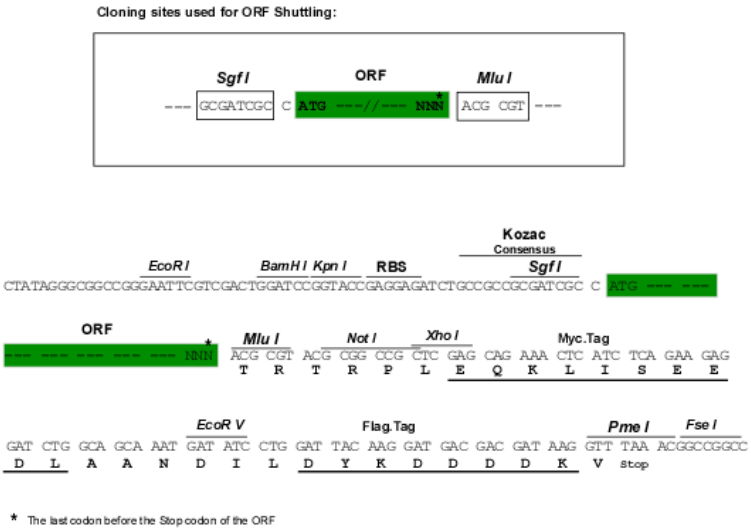
MPRERRERDAKERDTMKEDGGAEFSARSRKRKANVTVFLQDPDEEMAKIDRTARDQCGSQPWDNNAVCAD
PCSLIPTPDKEDDDRVYPNSTCKPRIIAPSRGSPLPVLSWANREEVWKIMLNKEKTYLRDQHFLEQHPLL
QPKMRAILLDWLMEVCEVYKLHRETFYLAQDFFDRYMATQENVVKTLLQLIGISSLFIAAKLEEIYPPKL
HQFAYVTDGACSGDEILTMELMIMKALKWRLSPLTIVSWLNVYMQVAYLNDLHEVLLPQYPQQIFIQIAE
LLDLCVLDVDCLEFPYGILAASALYHFSSSELMQKVSGYQWCDIENCVKWMVPFAMVIRETGSSKLKHFR
GVADEDAHNIQTHRDSLDLLDKARAKKAMLSEQNRASPLPSGLLTPPQSGKKQSSGPEMA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6176_b06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001238

ORF Size: 1230 bp

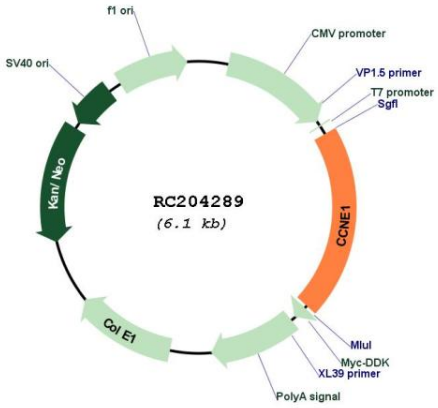
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

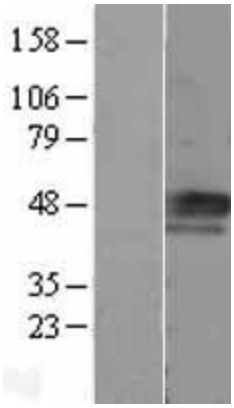
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001238.4
RefSeq Size:	2021 bp
RefSeq ORF:	1233 bp
Locus ID:	898
UniProt ID:	P24864
Cytogenetics:	19q12
Domains:	cyclin_C, CYCLIN, cyclin
Protein Families:	Druggable Genome, Stem cell - Pluripotency, Stem cell relevant signaling - DSL/Notch pathway, Transcription Factors
Protein Pathways:	Cell cycle, Oocyte meiosis, p53 signaling pathway, Pathways in cancer, Prostate cancer, Small cell lung cancer
MW:	47.1 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. This cyclin forms a complex with and functions as a regulatory subunit of CDK2, whose activity is required for cell cycle G1/S transition. This protein accumulates at the G1-S phase boundary and is degraded as cells progress through S phase. Overexpression of this gene has been observed in many tumors, which results in chromosome instability, and thus may contribute to tumorigenesis. This protein was found to associate with, and be involved in, the phosphorylation of NPAT protein (nuclear protein mapped to the ATM locus), which participates in cell-cycle regulated histone gene expression and plays a critical role in promoting cell-cycle progression in the absence of pRB. [provided by RefSeq, Apr 2016]

Product images:



Circular map for RC204289



Western blot validation of overexpression lysate (Cat# [LY400495]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204289 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).