

## Product datasheet for **SC305751**

### Cyclin E1 (CCNE1) (NM\_057182) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cyclin E1 (CCNE1) (NM_057182) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cyclin E1
Synonyms:	CCNE; pCCNE1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_057182 edited  
GCGATCGCCATGCCGAGGGAGCGCAGGGAGCGGGATGCCAAGGAGCGGGACACCATGAAG  
GAGGACGGCGGGCGCGGAGTTCTCGGCTCGCTCCAGGAAGAGGAAAGCAAACGTGACCGTT  
TTTTTGCAGGATCCAGATGAAGAAATGGCCAAAATCGACAGGACGGCGAGGGACCAAGTGT  
GGGAGCCAGCCTTGGGACAATAATGCAGTCTGTGCAGACCCCTGCTCCCTGATCCCCACA  
CCTGACAAAGAAGATGATGACCGGGTTTACCCAACTCAACGTGCAAGCCTCGGATTATT  
GCACCATCCAGAGGCTCCCCGCTGCCTGTACTGAGCTGGGCAAATAGAGAGGAAGTCTGG  
AAAATCATGTTAAACAAGGAAAAGACATACTTAAGGGATCAGCACTTTCTTGAGCAACAC  
CCTCTTCTGCAGCCAAAATGCGAGCAATTCTTCTGGATTGGTTAATGGAGGTGTGTGAA  
GTCTATAAACTTCACAGGGAGACCTTTTACTTGGCACAAGATTTCTTTGACCGGTATATG  
GCGACACAAGAAAATGTTGTA AAAACTCTTTTACAGCTTATTGGGATTTTCATCTTTATTT  
ATTGCAGCCAAAATGAGGAAATCTATCCTCAAAGTTGCACCAGTTTGGGTATGTGACA  
GATGGAGCTTGTTCAGGAGATGAAATTCTACCATGGAATTAATGATTATGAAGGCCCTT  
AAGTGGCGTTTAAAGTCCCTGACTATTGTGTCCTGGCTGAATGTATACATGCAGGTTGCA  
TATCTAAATGACTTACATGAAGTGTACTGCCGAGTATCCCCAGCAAATCTTTATACAG  
ATTGCAGAGCTGTTGGATCTCTGTGTCCTGGATGTTGACTGCCTGAATTTCTTATGGT  
ATACTTGCTGCTTCGGCCTTGTATCATTCTCGTCATCTGAATTGATGCAAAAGGTTTCA  
GGGTATCAGTGGTGGCAGATAGAGAAGTGTGTCAAGTGGATGGTTCCATTTGCCATGGTT  
ATAAGGGAGACGGGGAGCTCAAACTGAAGCACTTCAGGGGCGTCGCTGATGAAGATGCA  
CACAACATACAGCCACAGAGACAGCTTGGATTTGCTGGACAAAAGCCCGAGCAAAGAAA  
GCCATGTTGTCTGAACAAAATAGGGCTTCTCTCTCCCCAGTGGGCTCCTCACCCCGCCA  
CAGAGCGGTAAGAAGCAGAGCAGCGGGCCGAAATGGCGTGAACGCGT

Restriction Sites:	Please inquire
ACCN:	NM_057182
Insert Size:	1200 bp



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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_057182.1</a></u> , <u><a href="#">NP_476530.1</a></u>
<b>RefSeq Size:</b>	1787 bp
<b>RefSeq ORF:</b>	1188 bp
<b>Locus ID:</b>	898
<b>Cytogenetics:</b>	19q12
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency, Stem cell relevant signaling - DSL/Notch pathway, Transcription Factors
<b>Protein Pathways:</b>	Cell cycle, Oocyte meiosis, p53 signaling pathway, Pathways in cancer, Prostate cancer, Small cell lung cancer

**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]

Transcript Variant: This variant (2) contains an alternate 5' end region. Translation begins at a downstream start codon, compared to variant 1, and results in an N-terminal truncated protein, as compared to isoform 1.