

## Product datasheet for **RN217246**

### Clock (NM\_001289832) Rat Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Clock (NM_001289832) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Clock
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

**Fully Sequenced ORF:** >RN217246 representing NM\_001289832  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTTGTTTACCCTAAGCTGTAGTAAAATGAGCTCAATTGTTGACAGAGATGACAGTAGTATTTTTGATG  
 GATTGGTGAAGAAGATGACAAGGACAAAGCAAAAAGAGTATCTAGAAACAAATCAGAAAAGAAAGTAG  
 AGATCAGTTCAATGTACTCATTAAAGGAAGTGGGTCTATGCTTCCGGTAAATGCTAGAAAGATGGACAAG  
 TCTACTGTTTACAGAAGAGCATTGATTTTTTACGCCAAACATAAAGAGATCACTGCACAGTCAGATGCTA  
 GTGAAATTCGACAGGACTGGAAACCTACATTCCTTAGTAATGAAGAGTTTACACAATTAATGTTAGAGGC  
 TCTTGATGGTTTTTTTTAGCGATCATGACAGATGGAAGTATAATATATGTATCTGAGACGGTAACCTCG  
 TTAAGTGAACATTTACCATCTGATCTTGTGGATCAAAGTATATTTAATTTTATCCAGAGGGAGAACATT  
 CAGAGGTTTATAAGATACTATCTACTCACCTGCTGGAAAGTACTCCTTAACCCCGAGGACTTAAATC  
 AAAAAATCAGTTAGAATCTGTTGTACATGCTTCGAGGAACAATAGACCCAAAGGAGCCATCCACCTAT  
 GAATATGTGAGATTTATAGGAAATTTAAATCTTTAAACAGTGTATCAACTTCAACACATAATGGTTTCG  
 AAGGAACTATACAGCGCACACACAGGCCTTCTTATGAAGATAGAGTTTGTTCGTAGCTACTGTCAGATT  
 AGCTACCCCTCAGTTCATCAAGGAAATGTGACTGTTGAAGAACCGAATGAAGAGTTCACATCTAGACAC  
 AGTTTAGAATGGAAGTTTCTATTTCTAGATCACAGGGCGCCCAATCATAGGCTATCTGCCGTTTGAAG  
 TCCTGGGAACATCAGGCTATGATTACTATCATGTGGACGACCTAGAAAGTCTGGCAAAATGTCATGAGCA  
 CTTAATGCAATATGGAAGGCAATCATGTTACTATAGGTTCTTGACCAAGGACAGCAGTGGATTTGG  
 CTTGAGACTCATTACTATACCTTACCATCAGTGGAACTCAAGGCCAGAGTTCATCGTTTGTACTCACA  
 CTGTAGTAAGTTATGAGAAGTTAGGGCTGAAAGACGGGAGAAGTGGCGTTGAGGAGTCTTCCCGA  
 GACAGCTGCTGACAAAAGCCAAGATTCTGGGTCTGACAATCGTATAAACACAGTGTAGTCTCAAGGAAGCA  
 CTGGAAGGTTTCGATCACAGCCCACTCCTTCTGCCTCCTCCAGAAGCTCAAGAAAGTCTCGCACACAG  
 CAGTCTCAGACCTTCTCAACGCCGACAAAGTCCCACTGATACTAGCACTCCTCCAGACCCGACCT  
 GCCAGCTCATGAGAAGATGACACAGCGGAGGTCATCCTTCAGTAGTCAGTTTCAGCTTTCAGCTCAGTTA  
 GGAGCCATGCAGCATCTCAAAGACCAGCTAGAGCAGCGGACACGCATGATAGAAGCAAATATTCATCGGC  
 AGCAAGAAGAATAAGGAAAATTAAGAACAATTCAAATGGTCCATGGTCAAGGGCTACAGATGTTTTT  
 GCAGCAATCAAACCTGGACTGAATCTTGGTCTGTTCAACTTTCCTCTGGAAATCCAATATCCAGCAA  
 CTCACACCTATAAATATGCAAGGCCAAGTTGTCCCTGTTAACCAGATTCAGAGTGGGGTGAATGCTGGCC  
 ATGTCAGCACAGGCCAGCACATGATCCAGCAGCAGACTTTACAAAGTACATCAACTCAGAGTCAACAGAG  
 TGTAATGAGTGGACACAGTCAGCCAACGCTCTTCCAAACCAGACGCGGAGCACTCTGACAGCCCACTG  
 TACAATACGATGGTGATCTCTCAGCCTGCGGCTGGGAGCATGGTCCCGATTCCATCCAGTATGCCGAGA  
 ATAGCACCCAGAGTGCTACAGTACCACGTTCACTCAGGACAGACAGATAAGGTTTTCTCAAGGTGACGA  
 ACTTGTGACCAAATAGTGACTGCTCCTGTAGCTTGTGGGGCCGTCATGGTGCCAAGTACCATGCTTATG  
 GGTGAGTGTGACTGCCTATCCTACTTTTCCACACAACAGCAGCAGGACAGGCAAGGCTTGTGAGTAAAC  
 AGCAACAGCAGCAGCAGCAGCAGCAGCAACAGCAGCAGCAGCAGCAGCCGACAGGCGCAGCAGCC  
 CCAGTCACAGCAGAGTCCCAGGACCAGCCGATCCTTTCAGTTCAGCAGCCAGCTCAGTGACCCAGCCA  
 CCACAACAGTTCTTACAGACATCTCGGTTGCTCCATGGGAATCCTTCGACACAGCTCATCTCTCCGCTG  
 CCTTCCACTACAACAGGCACTTTCCCTCCTTGCACACCAGCAACACCAGCAACAGCAGCTCCATCG  
 GCACAGGACTGACAGCCTGACTGACCCTTCCAAGGTCCAGCCACAGTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001289832  
**Insert Size:** 2499 bp

<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>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>NM_001289832.1, NP_001276761.1</u>
<b>RefSeq Size:</b>	9201 bp
<b>RefSeq ORF:</b>	2499 bp
<b>Locus ID:</b>	60447
<b>UniProt ID:</b>	<u>Q9WVS9</u>
<b>Cytogenetics:</b>	14p11
<b>Gene Summary:</b>	<p>The protein encoded by this gene plays a central role in the regulation of circadian rhythms. The protein encodes a transcription factor of the basic helix-loop-helix (bHLH) family and contains DNA binding histone acetyltransferase activity. The encoded protein forms a heterodimer with Arntl (Bmal1) that binds E-box enhancer elements upstream of Period (Per1, Per2, Per3) and Cryptochrome (Cry1, Cry2) genes and activates transcription of these genes. Per and Cry proteins heterodimerize and repress their own transcription by interacting in a feedback loop with Clock/Arntl complexes. Polymorphisms in this gene may be associated with behavioral changes, obesity, and metabolic syndrome. Two transcripts encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2014]</p> <p>Transcript Variant: This variant (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (S) has the same N- and C-termini but is shorter compared to isoform 1.</p> <p>Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>