

Product datasheet for **MC229053**

Clock (NM_001289826) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Clock (NM_001289826) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Clock
Synonyms:	5330400M04Rik; KAT13D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC229053 representing NM_001289826
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGTGTTTACCCTAAGCTGTAGTAAAATGAGCTCAATTGTTGACAGAGATGACAGTAGTATTTTTGATG
 GATTGGTGAAGAAGATGACAAGGACAAAAGCAAAAAGAGTATCTAGAAACAAATCAGAAAAGAAAGTAG
 AGATCAGTTCAATGTCCTCATTAAAGGAGCTGGGGTCTATGCTTCCGGTAAACGCGAGAAAGATGGACAAG
 TCTACTGTTTACAGAAGAGCATTGATTTTTTGCGCCAAACATAAAGAGACCACTGCACAGTCAGATGCTA
 GTGAGATTCGACAGGACTGGAACCCACATTCCTTAGTAATGAAGAGTTTACACAGTTAATGTTAGAGGC
 TCTTGATGGTTTTTTTTAGCGATCATGACAGATGGAAGTATAATATATGTATCTGAGAGTGAACCTCG
 TTAAGTGAACATTTACCATCTGATCTTGTGGATCAAAGTATATTTAATTTTATCCAGAGGGGAGAACATT
 CAGAGGTTTATAAGATACTCTACTCATCTGCTGGAAAGTGACTCATTAAACCCCTGAGTACTTAAATC
 AAAAAATCAGTTAGAATCTGTTGTACATGCTTCGAGGAACAATAGACCCAAAGGAGCCATCCACCTAT
 GAATATGTGAGATTTATAGGAAATTTAAATCTTTAACCAAGTGTATCAACTTCAACACACAATGGTTTTG
 AAGGAACATACAACGCACACATAGGCCTTCTTATGAAGATAGAGTTTGTGTTTGTAGCTACTGTCAGATT
 AGCTACACCTCAGTTCATCAAGGAAATGTGACTGTTGAAGAACCAATGAAGAGTTTACATCTAGACAC
 AGTTTAGAATGGAAGTTTCTATTTTTAGATCACAGGGCACCACCAATAATAGGCTATTTGCCATTTGAAG
 TCTTGGGAACATCAGGCTATGTTACTATCATGTGGATGACCTAGAAAATCTGGCAAAATGTCACGAGCA
 CTTAATGCAATATGGAAGGCAAAATCGTGTACTATAGATTCCTGACCAAGGCCAGCAGTGGATATGG
 CTTCAGACTCATTATTATATTACTTACCATCAGTGGAAATCAAGGCCAGAGTTCATTGTTGTACTCACA
 CTGTAGTAAGTTATGAGAAGTTAGGGCTGAAAGACGGGAGAAGTGGCATTGAAGAGTCTCTTCTGGA
 GACAGCTGCTGACAAAAGCCAAGATTCTGGGTCTGACAATCGTATCAACACAGTGAAGTCTCAAGGAAGCA
 CTGGAAGGTTTGTATCACAGCCCAACTCCTTCTGCCTCCTCTAGAAGCTCACGAAAGTATCTCACACCG
 CAGTCTCAGACCTTCTCCACACCGACAAAGATCCCTACTGATACTAGCACTCCTCCAGACAGCATT
 GCCAGCTCATGAAAAGATGACACAGCGGAGGTCGCTCCTCAGCAGTCAGTCCATAAACTCCAGTCAAGT
 GGTCCATCATTAAACACAGCCAGCGATGTCTCAAGCTGCAATTTACCAATCCACAAGGCATGTCACAGT
 TTCAGTTTTCAGTCAAGTAGGAGCCATGCAGCATCTAAAAGACCAGCTAGAGCAGCGGACAGGATGAT
 AGAGGCAAAATATTCATCGGCAGCAAGAAGAACTAAGGAAAATCAAGAGCAACTTCAGATGGTCCATGGT
 CAAGGGCTACAGATGTTTTGCAGCAATCAAACCTGGATTGAATTTGGTTCTGTTCAACTTTCTCTG
 GAAATTTAATATCCAGCAACTCACACCTGTAATATGCAAGGCCAGGTTGTCCCTGCTAACCCAGGTTCA
 GAGTGGACATATCAGCACAGGCCAGCACATGATACAGCAACAGACTTTACAAAGTACATCAACTCAGCAG
 AGTCAACAGAGTGAATGAGTGGACACAGTCAGCAGACGTCCTTCCAAGTCAGACACCGAGCACTCTCA
 CAGCCCCACTGTACAATACGATGGTGAATTTCCAGCCTGCAGCTGGGAGCATGGTCCAGATTCATCCAG
 TATGCCACAGAACAGTACCCAGAGTGTACAGTCACTACGTTCACTCAGGACAGACAGATAAGATTTTCT
 CAAGGTCAGCAACTGTGACCAAATTAGTACTGCTCCTGTAGCTTGTGGGGCCGTCATGGTACCAAGTA
 CCATGCTTATGGGTCAGGTGGTACTGCCTATCCTACCTTCGCCACACAACAGCAGCAGGACAGACATT
 ATCGGTAACACAACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGT
 TCCAGGAACAGCAGCTTCCCTTCAAGTTCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGT
 TCTTACAGACATCTAGGTTGCTCCACGGGAATCCTTCGACACAGCTCATCCTCTGCTGCCCTTCCACT
 ACAACAGAGCACTTTCCCTCCTTCGACACCAGCAACACCAGCCTCAGCAGCAACAGCAGCTTCTCGG
 CACAGGACTGACAGCCTGACTGACCTTCCAAGTCCAGCCACAGTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001289826
Insert Size: 2568 bp

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:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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_001289826.1, NP_001276755.1</u>
RefSeq Size:	9758 bp
RefSeq ORF:	2568 bp
Locus ID:	12753
UniProt ID:	<u>O08785</u>
Cytogenetics:	5 40.63 cM
Gene Summary:	<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 the same protein have been found for this gene. [provided by RefSeq, Jan 2014]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 both encode the same isoform (1). 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>