

## Product datasheet for **MC224087**

### Per2 (NM\_011066) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Per2 (NM\_011066) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Per2  
**Synonyms:** mKIAA0347; mPer2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Fully Sequenced ORF:** >MC224087 representing NM\_011066  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAATGGATACGTGGACTTCTCCCAAGTCCCACCAGTCCCACCAAGGAGCCAGGGGCACCTCAGCCCA  
 CCCAGGCTGTGCTCCAGGAAGACGTGGACATGAGCAGTGGCTCCAGCGGAAACGAGAAGTCTCCACGGG  
 ACGGGACTCTCAGGGCAGTGACTGCGACGACAATGGGAAGGAGCTGCGGATGCTCGTGGAACTTCCAAAC  
 ACTCACCCAGCCCTGATGATGCCTTCAGACTCATGATGACAGAGGCAGAGCACAACCCCTCCACGAGCG  
 GCTGCAGTAGTGAGCAGTCTGCCAAGCTGACGCACACAAGAAGTATAAGGACCCTGAAGGAGCTGAA  
 GGTCCACCTCCCTGCAGACAAGAAGGCCAAGGGGAAGGCCAGCAGCTGGCAACCTTGAAGTATGCCCTG  
 CGGAGCGTGAAGCAGGTGAAGGCTAATGAGGAGTACTACCAGCTGCTAATGTCCAGTGAGAGCCAGCCCT  
 GCAGTGTGGATGTGCCTTCTACAGCATGGAGCAGGTTGAGGGCATTACCTCCGAGTATATCGTGAAGAA  
 CGCGGATATGTTTGTGTGGCTGTGTCCCTGGTTTCTGGGAAGATCCGTACATCTTAACCAAGTGGCC  
 TCCATCTTTCAGTGAAGAAGGACGCCTTCAGTGTGCCAAGTTTGTGGAGTTCTTGCTCCTCATGACG  
 TCAGTGTGTTCCACAGCTACACCACCCCTTACAAGCTTCCGCCCTGGAGTGTGTGCAGCGGCTTAGATTC  
 TTTCACTCAGGAGTGCATGGAGGAGAAAATCTTTTTCTGCCGTGTGAGTGTGGGAAACACCACGAGAAT  
 GAGATTGCTACCAGCCCTTCCGCATGACACCCTACCTGGTCAAGGTGCAAGAGCAGCAGGGTGTGAGA  
 GCCAGCTCTGCTGCCTGCTGCTGGCAGAGAGGGTACACTCGGGCTATGAAGCGCCTAGAATCCCTCCTGA  
 GAAGAGGATCTTCAACAACCCACACACCAAAGTCTGTTGTTCCAGGCTGTGGATGAAAGGGCGGTCCTCC  
 CTCTGGGCTATCTACCTCAGGATCTGATCGAGACGCCTGTGCTCGTGCAGCTCCACCCAGCGACCGGC  
 CCTTGATGCTCGCCATCCACAAGAAGATCTACAGGCCGGTGGACAGCCTTTCGATTATTCTCCCATTG  
 ATTCCGCACCCGCAACGGGGAGTACATCACACTGGACACTAGCTGGTCCAGCTTCATCAACCCGTGGAGC  
 AGGAAGATATCTTTCATATTGGGAGGCACAAAGTCAAGGTAGGCCCTTGAATGAGGATGTGTTCCGAG  
 CCTCCCGTGCCAGAGGAGAAGACTCCGCACCCAGCGTTCAGGAGCTCACAGAACAAATCCACCGGCT  
 ACTGATGCAGCCTGTCCCCACAGCGGCTCCAGTGGCTATGGGAGCCTGGGCAGTAAACGGATCCCACGAA



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CACCTCATGAGCCAGACATCATCCAGCGACAGCAATGGCCAAGAGGAGTCTCACCGGAGGAGATCCGGAA  
 TTTTAAACCAGTGGCAAGATTCAAACAAAAGTACGTTTTTCATGAGTCTGGAGGACAGAAGGAAGC  
 ATCTGTTGCAGAAATGCAAAGCAGCCCCCAGCTCAGGTGAAAGCTGTCACCACCATAGAAAGGGACAGC  
 TCAGGGGCCAGCCTACCCAAGGCCAGCTTCCCAGAGGAACTAGCCTATAAGAACCAGCCTCCTTGCTCT  
 ACCAGCAGATCAGCTGCCTGGACAGTGTATCAGGTACCTGGAGAGCTGCAGCGAGGCAGCCACCCTGAA  
 AAGGAAGTGCAGTTCACAGCCAACATCCCATCCCGAAGGCCACAGTCAGCCCCGGGCTGCACTCTGGA  
 GAGGCAGCGCGGCCCTCCAAGGTGACCAGCCACACAGAGGTGAGTGTACCTGAGCTCCCTGACGCTGC  
 CAGGCAAGGCCGAGAGTGTGGTGTCCCTACCAGCCAGTGCAGCTACAGCAGCACCATCGTGCATGTGGG  
 CGACAAAAGCCACAGCCGAGCTAGAGACGGTGAAGATATGGCCAGTGGGCCCGAGTCCCTGGATGGT  
 GCGGCCGCGGCCTCAGCCAAGAAAAGGGGCTCTTCAGAAGTTGGGCTCACCAAGGAAGTTCTGGCTG  
 CACATACAGAGAGAGGAGCAGGGCTTCTGCAGAGGTTCAGGGAGGTGAGCAGGCTCAGTGCCCTGCA  
 GGCTCACTGCCAGAACTATCTCCAGGAGCGTCCCAGCCAGCGAGTGATCGAGGACTAAGAAATACT  
 TCTGGACTAGAGTCATCTTGAAAAAACTGGAAAGAACAGGAACTGAAGTCAAACCGGTCAAGACTC  
 GGGACTCTCTGAGAGCACAGGGTCTGGAGGACCAGTGTCCACCACCTCCCTCATGGCCTGAATGC  
 CACAGCCTGGTCACCCTCCGACACATCCAGTCCAGTGCCTCTGCACCCTTCCCACCGCAGTGCCA  
 GCTTACCCCTACTGTGTCCAGGCACCCGGAATAGTATCCACACCAGGACGGTGGTGGCGCCACCTG  
 CAGCCACCACACTGGCTTCACCATGCCTGTTGTGCCTATGGGCACCCAGCCTGAATTTCGAGTGCAGCC  
 CCTGCCATTGCTGCCCTTTGGCTCCTGTATGGCCTTATGCTGCCAGCTACCCGTTCCCACCGCA  
 ACCCAAACCTGCCTCAGGCCTTCTCCCAGCCAGCCTCACTTTCAGCCCACCCACACTTGCCTCCG  
 AAATAACTCCTGCCTCCCAGGCTGAGTTCCTAGTCGGACCTCGACGCTCAGACAGCCGTGCGCTTGCC  
 AGTCACCCTCCAGCCGACAGTGGCCCTGGGACAGCCTCCCACCGCTTTCAGTCCAGAGGCAGT  
 AGTCCCCTACAACCTAACCTGCTCAGCTAGAGGAGCGCCTGAAGGCAGCACTGGAGCCGAGGGACCC  
 TGGGACACAGGGACAGCAGCTTCTGGTCTGGACTGCACATCTGGCACATCTCGGATCGGCAGCCAAA  
 GGCACCTCCAACATGCAACGAGCCCTCAGACACTCAGAACAGTATGCCATCTCCACGTCAAGTGACTG  
 CTAACCTCCTTCTGGGCGAGGACCTCTGCTCGGCCACTGGCTCAGCCCTGTCTAGAAGCGGGCATCCG  
 CCACCTCAGACTCTGGGCTCCAGCTCGCTGGGCTTCGGCACATCCCAAAGTGGGGCAGGCAGTAGTGA  
 CACAAGTCACACCAGCAAATACTTTGGAAGCATTGACTCTTCAGAGAATAATCACAAGCAAAAATGATC  
 CCAGACACGGAGAAAGCGAGCAGTTCATTAAGTACGTCTTGACAGACCCCATCTGGCTGCTGATGGCCA  
 ACACAGACGACAGCATCATGATGACATACCAGTGCCTCCCGGATCTCCAGGCGGTGTTGAAGGAGGA  
 CCAGGAGAAGCTGAAGCTGCTGCAGAGTCCCAGCCCCGTTACAGAGGGCCAGAGGCGAGAGCTCCGA  
 GAGGTTATCCGTGGGTCCACACTGGGGCCTGCCTACGGCCATCGATGTGACAGGCTGTGTTTACTGCG  
 AGAGTGAGGAGAAAGGCAACATTTGCTGCCATATGAGGAAGACAGTCTTCCCAGGACTCTGTGATAC  
 CTCAGAAGCCAAAGAGGAGGAAGGTGAACAGCTGACAGGCCCCAGGATAGAGGCCAGACGTAA

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Chromatograms: [https://cdn.origene.com/chromatograms/ja1763\\_c02.zip](https://cdn.origene.com/chromatograms/ja1763_c02.zip)

Restriction Sites: SgfI-RsrII

ACCN: NM\_011066

Insert Size: 3774 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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.

**RefSeq:** [NM\\_011066.3](#), [NP\\_035196.2](#)

**RefSeq Size:** 5845 bp

**RefSeq ORF:** 3774 bp

**Locus ID:** 18627

**UniProt ID:** [O54943](#)

**Cytogenetics:** 1 D

**Gene Summary:** This gene is a member of the Period family of genes and is expressed in a circadian pattern in the suprachiasmatic nucleus, the primary circadian pacemaker in the mammalian brain. Genes in this family encode components of the circadian rhythms of locomotor activity, metabolism, and behavior. This gene is upregulated by Clock/Arntl heterodimers but then represses this upregulation in a feedback loop using Per/Cry heterodimers to interact with Clock/Arntl. Polymorphisms in this gene may increase the risk of getting certain cancers and have been linked to sleep disorders. [provided by RefSeq, Jan 2014]