

## Product datasheet for MC224162

### Per1 (NM\_001159367) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Per1 (NM\_001159367) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Per1  
**Synonyms:** Hftm; m-rigui; mPer1; Per  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC224162 representing NM\_001159367  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGTGGTCCCCTAGAAGGGGCCGATGGGGGAGGAGACCCAGGCCCGGAGAACCTTTTTGTCTGGAG  
 GAGTCCCATCCCCTGGGGCCCCGAGCACCCGGCCTTGCCAGGCCCCAGCCTGGCTGATGACTGATGC  
 AAACAGCAATGGCTCAAGTGGCAATGAGTCCAACGGACCCGAGTCCAGGGGCGCATCTCAGCGGAGTTCT  
 CATAGTTCCTCTTCTGGCAATGGCAAGGACTCAGCTCTGCTGGAGACCACTGAGAGCAGCAAGAGTACAA  
 ACTCACAGAGCCCATCCCCACCCAGCAGCTCCATTGCCTACAGCCTCCTGAGTGGGAGCTCAGAGCAGGA  
 CAACCCATCTACCAAGTGGCTGCAGCAGTGAACAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGT  
 GCATTCGGGAGCTCAAACCTCGACTGCCACCAGAGCGTCGGGGCAAGGGCCGCTCTGGGACCTTGCCCA  
 CACTGCAGTACGCTCTGGCCTGTGTCAAGCAGGTTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGT  
 GGAGGAGGGTGAAGCTTGTGCCATGGACATGTCTACTTACACCCTGGAGGAATTGGAGCATATCATATCC  
 GAATACACACTTCGAAACCAGGACACCTTCTCTGTGGCTGTGTCTTCTGACAGGCCGGATTGTCTATA  
 TTTGGAGCAGGCAGGTGTCTGCTGCGTTGCAAACGGGATGTGTTTCGGGGTCCCGCTTCTCAGAGCT  
 CCTGGCTCCCCAGGATGTGGGTGTCTTCTATGGCTCTACTACACCATCTCGACTGCCACCTGGGGCACT  
 GGCACCTCTGCAGTTCAGGTCTCAAGGACTTCAACCAGGAAAAGTCTGTCTTCTGCCGAATCAGAGGAG  
 GTCCTGACCGGGATCCAGGGCCTCGGTACCAGCCATTCCGCTAACCCCATATGTGACCAAGATTCGGGT  
 CTCAGATGGAGCCCTGCACAGCCGTGCTGCTACTCATTGCCGAGCGCATCCACTCTGGTTATGAAGCT  
 CCCCAGGATCCCTCTGACAAGAGGATCTTACCACCCGACACACCAAGCTGCCTTCCAGGATGTAG  
 ATGAAAGGGTGCCTGCTGGGTTACCTTCCCAGGATCTCCTGGGGCTCCAGTACTTCTCTTTCT  
 ACATCCTGAGGACCGACCCCTCATGCTGGCCATTATAAGAAGATACTGCAGCTGGCAGGCCAGCCCTTT  
 GACCATTCCCCTATTCGCTTCTGTGCTCGGAACGGGAATATGTCACCATGGACACCAGTGGGCCGGTT  
 TTGTGACCCCTGGAGCCGCAAGGTGGCTTTCTGTTGGGTGCGCCATAAAGTGGCAGCCAGCCCTGAA  
 TGAGGACGTCTTCACTCCCCAGCCCCAGCCAGCTCCGTCCTGGACTCTGATATCCAGGAGCTCTCA  
 GAGCAGATCCATCGATTGCTGCTGCAGCCTGTGCAGCTCCAGCCCCACGGGGCTGTGGAGTTGGCC



CTCTGATGTCCCCTGGTCTCTACACAGCCCTGGCTCCTCCAGTGATAGCAATGGGGGGACGCTGAGGG  
 GCCTGGGCTCCTGCTCCAGTGACTTCCAGCAGATCTGTAAGGATGTGCATCTGGTAAAGCACCAGGGA  
 CAACAGCTCTTCATTGAATCTCGGGCAAGCCCCACCCCGCCCTCCTTGCTACAGGTACATTCA  
 AAGCCAAAGTCTTCCCTGCCAGTCCCCAAACCCGAACCTGGAGGTGGCCCCAGTTCTGACCAAGCCTC  
 GTTAGCCTTGGCCCTGAGGAGCCAGAGAGAAAGAAACCTCTGGCTGTTCTACCAGCAGATCAACTGC  
 CTGGACAGCATCCTCAGGTATTTGGAGAGTGCAACATCCCAGTACAACCAAGCGTAAATGTGCCTCT  
 CCTCCTCTACACTGCCCTTTCAGCCTCTGATGATGACAAGCAGAGGGCAGGTCCAGTTCCTGTGGGGC  
 CAAGAAAAGATCCGTCGTACGAATGCTGTCTGGGAGGGGCAACTCCTCGGAAGGAGCCAGTGGTGGGA  
 GGCACCCTGAGCCGCTCGCCCTGGCCAATAAGGCAGAGAGCGTGGTGTCCGTCACCAGTCAGTGTAGCT  
 TCAGCTCCACCATCGTCCATGTGGGAGACAAGAAGCCCCGGAGTCGGACATCATCATGATGGAAGACCT  
 GCCTGGCTGGCCCTGGCCAGCCCCAGTCCGGCCCCAGCCCCACAGTAGCCCTGACCCAACCCCA  
 GATGCTTATCGCCAGTGGTCTGACCAAGGCCGTGCTGTCCCTGCACACAGAAGGAAGCAAGCCT  
 TCCTCAACCGCTCAGAGATCTTGGCAGGCTTCGTGGACTTGACACCTTCTGTGGCCCTCAGCCCC  
 TGGCTGCCACCATGGCCCATCCCCCTGGTCGCCGACACCCTGCCGATCTAAAGCAAAGCGTTCCCGC  
 CACCACCACCAGACCCCGCCCGAAACTCCCTGCTATGTCTCCCATCCTTCACTGTGCCCTCTT  
 CTGGACCTGGCCACCCCAACCAGCCAGACCCCTTCCAGCAATGGTCCAGCCCTACCCACTCCCACT  
 ATTCTCCCTCGAGGAGGACCCAGCCCTTCCCTGCCCCTACATCTGTGTCCCTGCTACCTTCCCT  
 TCTCCCTTAGTGACCCCAATGGTGGCTTGGTGTCCCTAACTATCTATTCCCTACCCCACTAGTTATC  
 CATATGGGGTGTCCCAGGCCCTGTTGAGGGGCCACCCACGCCTGCTTCCCACTCGCCCTCTCCATCCCT  
 GCCCCACCACCTCTCAGCCCCCCCACCGCCAGACTCCCCTGTTCAACTCGAGATGCAGCTCCCCA  
 CTCCAGCTCAATCTGCTGCAGCTTGAGGAGTCCCCCGCACGGAGGGGGCGTCTGTCAGGAGGCCAG  
 GAAGCAGTGTGGGCCCTGCCCTCCAGTGAGGAGACTGCTGAGCCAGAGGCCAGATTGGTGGAGTTAC  
 TGAGTCGTCCAATCAGGATGCATTTTCAGGCTCCAGCGACTGCTGGAGCTACTGCTCAAGAAGACTCT  
 CGCTCGGGCACAGGCTCCGCAGCCTCAGGCTCCCTGGGCTCTGGCCTGGGCTCTGGGTCTGGTTCCAGGAT  
 CCCACGAAGGGGAAGCACCTCAGCCAGCATCACCCGCAGCAGTCAGAGCAGCCATAACAAGCAAGTACTT  
 TGGCAGCATCGACTCTTCCGAGGCTGAAGCTGGGGCTGCTCGGGCCAGGACTGAGCCTGGGGACCAGGTC  
 ATTAAGTGTGTGCTCCAGGACCCATCTGGCTGCTCATGGCCAATGCCGACCAGCGTGTGATGACAT  
 ACCAGGTGCCGTCCAGGATGCAGCCTCTGTGCTGAAGCAAGACCGGGAGAGGCTCCGGGCCATGCAGAA  
 ACAGCAGCCACGGTTCTCAGAGGACCAGAGCGGGAACGGGTGCTGTGCACTCCTGGGTCGGAAGGGC  
 CAGCTGCCTCGGCCCTTGATGTGACGGCGTGTGTGGACTGTGGCAGCAGCGTTCAAGATCTGGCCACT  
 CTGATGACCCCTTCTCAGAAGTGGATGGATTGGGGCTGGAGCCCATGGAAGAGGGTGGAGGCGAGGG  
 TGGTGGGTGTGGTGTGGCGGTGGTGGGGTGGTGGTGGTGGAGGAGCCAGACCCAAATGGGGCTAAG  
 GTTCAAGCTCTCAGGACTCTGCCATGGAGGAAGAAGAGCAAGGTGGGGGCTCATCCAGCCAGCTTAC  
 CTGCAGAAGAAAACAGCACCAGCTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM\_001159367
- Insert Size:** 3876 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).
- 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\\_001159367.1](#), [NP\\_001152839.1](#)

**RefSeq Size:** 4648 bp

**RefSeq ORF:** 3876 bp

**Locus ID:** 18626

**UniProt ID:** [O35973](#)

**Cytogenetics:** 11 B3

**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. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jan 2014]

Transcript Variant: This variant (2) differs in the 5' UTR, compared to variant 1. Variants 1 and 2 encode the same protein.