

Product datasheet for **RN205432**

Per2 (NM_031678) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Per2 (NM_031678) Rat Untagged Clone
Tag: Tag Free
Symbol: Per2
Synonyms: rPER2
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN205432 representing NM_031678
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAATGGATATGTGGACTTTTCCCAAGTCCCACCAGCCCCACCAAGAGCCAGGGGAGCCTCAACCCA
CCCAGGCTGTGCTCCAGGAAGACGTGGACATGAGCAGCGGCTCCAGCGGAAATGAAAAGTCTCCACGGG
GCGGGACTCTCAGGGCAGTGACTGTGACGACAGTGAAAGGAGCTGCGGATGTTAGTGGAATCGTCCAAC
ACTCACCCAGCCCTGACGATACCTTCAGACTCATGATGACAGAGCGGAGCATAACCCCTCCACAAGCG
GCTGCAGTAGTGAGCAGTCTGCCAAGCTGACGCACACAAGAGCTGATAAGGACCCTGAGGGAGCTGAA
GGTCCACCTCCCTGCAGACAAGAAGGCCAAGGGGAAGGCCAGCACGCTGGCAACCTTGAAGTACGCTCTG
CGGAGCGTGAAGCAGGTGAAGGCTAATGAGGAGTACTACCAGCTGCTAATGTCCAGTGAGAGCCAGCCCT
GCAGCGTGGATGTGCCTTCTACACCATGGAGCAGGTTGAGGGCATTACCTCCGAGTATATTGTGAAGAA
CTCGGACATGTTTGTGTGGCTGTGTCCCTGGTCTCTGGGAAGATCCTGTACATCTCAACCAAGTCGCC
CCCATCTTTCAGTGAAGAAGGACGCCTTCAGTGATGCCAAGTTTGTGGAGTTCCTGGCTCCCCATGACG
TCAGTGTGTTCCACAGCTACACCACCCCTTACAAGCTTCGCCCCGGAGTGTGAGCAGTGCCCTTAGATT
TTTCACTCAGGAGTGCATGGAGGAGAAATCTTTTTCTGCCGTGTCAGTGTGGGAACACCACGAGAAT
GAGATTCGCTACCAGCCCTTCCGCATGACACCCTACCTGGTCAAGGTGCAAGAGCAGAAGGGCGCTGCGA
GCCAGCTCTGCTGCCTGCTGCTAGCAGAGAGGGTACACTCAGGCTATGAAGCTCCTAGAATTCTCCCGA
GAAGAGAAATTTCAACAACCCACACACCAAAGTGCCTGTTCCAGGATGTGGACGAAAGGGCGGTCCCC
CTCCTGGGCTATCTACCTCAGGATCTGATCGAGACCCCTGTGCTCGTGCAGCTCCACCCAGCGACCGGC
CCTTGATGCTCGCCATCCACAAGAAGATCTACAGGCCAGTGGGAGCCTTTCGATTATTCTCCCATTTCG
ATTCGACACGCAACGGGGAGTACATCAGTGGACTAGCTGGTCCAGCTTCATCAACCCGTGGAGC
AGGAAGATATCCTTCATCATCGGGAGGCACAAAGTCAGGTTAGGCCCTTGAATGAGGATGTGTTCCGAG
CCTCCCCTTGCCAGAGGAGAAGACTCCGACCCAGCGTTTCAGGAGCTCACAGAGCAAATCCACCGGCT
ACTGATGCAACCTGTCCCCACAGCGGCTCCAGTGCTATGGGAGCCTGGGAGTAAACGGATCCCACGAA
CACCTCATGAGCCAGACATCATCCAGCGACAGCAATGGTCAAGAGGAGTCTCACTGGAGGAGATCCGGAA



TTTTTAAACCAGTGGCAAGAGTCAAAGCAAAGTCACTTTTCTCCTGAGTCTGGAGGACAAAAGGAAGC
 CTCTGTTGCAGAAATGCAAAGTAGTCTCCAGCTCAGGTGAGGTCTGTACCACCATGGAAAGGGACAGC
 TCGGGGGCCAGCCTACCCAAGGCTAGCTTTCCAGAGGAACTAACCTATAAGAGCCAGCCTCCTTGCTCCT
 ACCAGCAGATCAGCTGCCTGGACAGTGTATCAGGTACCTGGAGAGTGAACGAGGCAGCCACCCTGAA
 AAGAAAGTGCAGATTCCAGCCAACATCCCATCCCGAAGGCCACGGTCAGCCCTGGGCTGCACTCTGGA
 GAGGCAGCGCGGTCTCCAAGGTGACCAGCCACACGGAGGTGAGTGTCACTTGAAGCTCCTTGCCGTTGC
 CGGGCAAGGCCAGAGTGTGGTGTCCCTCACCAGCCAGTGCAGCTACAGCAGCACCATCGTGCACGTGGG
 CGACAAAAGCCACAGCCTGAACTAGAGACAGTAGAAGATGTGGCCAGTGGGCTGAGTCCAGGATGAT
 GCAGCTGGTGGCCTCAGCCAAGAAAAGGGTCTCTGCAGAAGCTAGGCCTCACCAGGAAGTTCTGGCTG
 CACATACCAGAGAGAGGAACAGGGCTTCTGCAGAGGTTAGGGAAGTGAAGGCTCGGTGCCCTGCA
 GGCTCACTGCCAGAACTATCTCCAGGAGCGTCCCGAGCCCAGCAAGTATCGAGGACTAAGAAATGCT
 TCTGGAATAGAATCATCTTGAAAAAACTGGAAAGAACAGGAACTGAACTCCAAGCGTGTCAAGACTC
 GAGACTTCTGAGAGCACAGGGTCTGGGGACCCGTGTCCACCAGCTCCCTCGTGGCCTGAATGC
 CACAGCCTGGTCGCCCTGACACATCCAGTCTAGTGTCCCTCTGCACCATTCCCTGCTCCAGTGCCA
 GCTTACCCTACTGTGTTCCCGCACCTGGAATAGTATCCACACCAGGACGGTGGTGGCACCACCTG
 CAGCCGCCACACCGGCTTACCATGCCTGTTGTGCCTATGGGCACCCAGCCTGAATTGCGAGTGCAGCC
 CCTGCCGTTCCGCTGCCCCCTTGGCTCCGGTTCATGGCCTTATGCTACCCAGCTACCCGTTTCCACCAGCA
 ACCCAAACCTGCCTCAGGCCTTCTTCCCAGCCAGCCTCACTTCCGGCCCATCCCACACTTGCCTCTG
 AAATAACTCCTGCCTCCCAGGCTGAGTTCCTAGTCGGACCTCGATGCTCAGGCAGCCATGTGCTTGCCC
 AGTCACCCCCCGGCTGGCACAGTGGCCTTGGGCAGAGCCTCCCCGCCACTTCCAGTCCCAGGCAGC
 AGTCCCCTACAGCTTAACCTGCTCAGCTAGAGGAAGCACCTGAAAGTAGTACTGGAGTGCAGGGACCT
 TGGGACCACGGGACAGCAGCTTCTGGTCTGGACTGCACATCTGGCGCATCTCGGGACCCGACGCCAAA
 GGACCTCCAACATGCAGTGAAGCCTCAGACACCCAGAACAGTATGCCATCTCCACTCCAGTGAAGTGC
 CTCAACCTCCTCCTGGGGGAGGACCTCTGCTCAGCCACCGGCTCAGCACTGTGAGAAGCGGGGCATCTG
 CCACCTCAGACTCACTGGGCTCCAGCTCCCTGGGCTGTGACACATCCCGAGTGGGGCAGGCAGCAGTGA
 TACAAGTACACCAGCAAATACTTTGGAAGCATTGACTCTTCAAGAAATAATCACAAAGCAAAAATGATC
 ACAGACACGGAGGAGAGTGAACAGTTCATTAAGTACGTCTTGCAGGACCCCATCTGGCTGCTGATGGCCA
 ACACAGACGACAATATCATGATGACATACCAGTGCCTCCCGGGATCTCCAGGCGGTCTTGAAGAGGA
 CCAGGAGAAGCTGAAGCTGCTGCAGAGTCCCAGCCCACTTACGAGGGCCAGAGGCGAGAGCTTCGA
 GAGTTTATCCGTGGGTCCACACCGGGGTCTGCCTACCGCCATCGACGTAAAGGGTGTGTTTACTGTG
 AAAGTGAAGGAAAAGGCAACCTTTGTCTGCCATATGAGGAAGACAGTCTTCCCTGGGACTCTGTGATC
 CTCAGAAGCCAAAGAGGAGGAGCGGACAGCTGGCCAATCCTAGGAAGGAGGCCAGACGTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

Sgfl-Mlul

ACCN:

NM_031678

Insert Size:

3774 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_031678.1](#), [NP_113866.1](#)

RefSeq Size: 5761 bp

RefSeq ORF: 3774 bp

Locus ID: 63840

UniProt ID: [Q9Z301](#)

Cytogenetics: 9q36

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]