

Product datasheet for **RR202334**

Per3 (NM_023978) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Per3 (NM_023978) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Per3
Synonyms:	period3; rper3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR202334 representing NM_023978 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCCCTGTGAAACCCGGCAGTGCCTGGTGGCGACTGTCCCAAAGTAGGGGACCGGGCTCCAAG
GGTCGTCTGGCCAGGAGGTCTCTGCAGGCCATTTGCGTGGACAGCAGCCACAGTGAACATGAAGACCG
AAACAGAAATGTCTGAAGAGCTTATAATGGTTGTCCAAGAAATGAAAAAGTATTTCCAGCCGAGAGACAC
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ATACCGGCTCTGGAGGCGATCTGCGGCCAGAGCAGCATAGCTCGTCTATCAGCAGATGAACTGCATCGA
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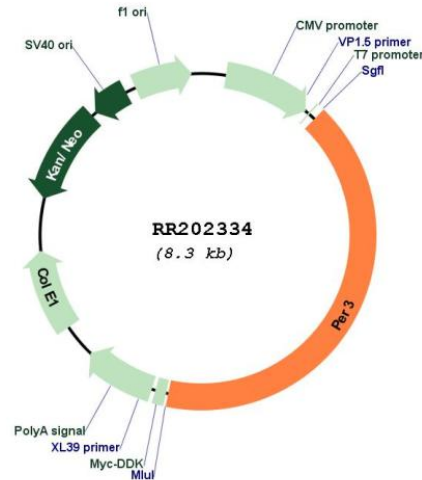
Protein Sequence:

>RR202334 representing NM_023978
 Red=Cloning site Green=Tags(s)

MDPCGNPAVPGGDCPQTRGPGLQGSSGQEGPLQGICVDSSHSEHEDRNRMSEELIMVVQEMKYPFAERH
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 RICGGDREQKRHYSPFRILPYLVHVHSPAQPEPEPCCLTLVEKIHSGYEAPRIPVDKRVFTTHTPGCV
 FLEVDERAVPLLGFLPQDLIGTSLTYLHPEDRPLMVAHVQKVLKYVGHPPFEHSPIRFCTQNGDYVILD
 SSWSSFVNPNWSRKVSFIIGRHKVRTSPLNEDVFATRIKKATSHDEDITELQEIQIHRLLLQPVHASASSGY
 GSLGSSGSQEQHISVTSSESSGHCVEEAQQEQMTLQQVYASVNIKINVQQQLYIESMARSSVKPVMETC
 TEPQGSDEQKDFSSSQTLLKNKSTDTGSGGDLRPEQHSSYQQMNCIDSVIRYLTYSFPAKLRKICISCTN
 TSSSSEEAKPNPEADGSLRDTEQLLDIPEQETTAPSADAEGGVARTLSTAALSMASGVSQCSCSSTTDHV
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 RNHAKYACVVGAGATPKHSRCAGSERRKHKRKLLPTPVDSSSSAHLCPHVGRLLPDVQHWASVSTPCA
 TGLALPSALVPSQTPYLLSSFPLQDMAPQGVGDSAAWGAEECPPLSAGPQPVSTFPSAYMGTFMTVLL
 HNSPLFPLWPASFSYPFLGATGPSQMAPLVPAMAPDLEPTPSDHGPRRVEENWETHSEEHPISSRSS
 SPLQLNLLQEEMPAPSEYADAVRRGACPDAKQLCVTGNSSRSRPPCATGELATASVQOQESSAAAAGSSA
 SSVHSGSDYTSVSENGQRSQDRDRDRAFSGAAEESIWRMIERTPECVLMTYQVPERGRDVTVREDLEK
 LHSMERQQPQFSSAQKEELAKVRSWIHSRPAPEERQLQSYVTCENRGSVGDTAEECEQCPAEDTSFSW*H
 CRGL*TVSSRRHQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Plasmid Map:



ACCN: NM_023978

ORF Size: 3345 bp

OTI Disclaimer: 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](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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 Size: 3504 bp

RefSeq ORF: 3348 bp

Locus ID: 78962

UniProt ID: [Q8CJE2](#)

Cytogenetics: 5q36

MW: 121.9 kDa

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 have been linked to sleep disorders. [provided by RefSeq, Feb 2014]