

Product datasheet for **MG221637**

Per3 (NM_011067) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Per3 (NM_011067) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Per3
Synonyms:	2810049O06Rik; mPer3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG221637 representing NM_011067 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCCCTGTGGAGACCCGGCAGTACTTGGTGGCGACTGTCCCAGACTAGGGGACCGGGGCTCCAGG
GGGCGTCTGGCCAGGAGGGTCTCTGCAGGGCACTTGCCTGGACAGCAGCCACAGTGAACACGAAGACCG
AAACAGAAATGTCTGAAGAGCTTATAATGGTTGTCCAAGAAATGAAAAAGTATTTCCAGCCGAGAGGCAC
ACTAAGCCAGTACCCTAGATGCTCTTAACTATGCCCTGCGCTGTGTACACAGTGTGAAGCAAACAGTG
ACTTTTTCCAGAGTCTCGGTCCACGCGGAGCACACCAGGCAGATGTGACTGTATACAGTCTTGAGGACCT
CACCGCTCTGGCTTCTGAACATACTTCTAAGAACACAGATACCTTCGCGGCCGTGTTTTCGTTTTCTGTCT
GGAAGGTTAGTGACATTTCTGAGCAGGCTGCTTTGATCCTGAATTCTAAGAGGGGTTTTCTCAAGAGCG
TGCACTTTGTGCGACTGCTTGCCCTCAAGACGTGAGGGCGTTCTACGCGCACACTGCTCCAACCTCAGCT
TCCTTTCTGGAACAACCTGGACCCAAAGAGCCTCGCAGTATGAATGTGCACCAGCGAAACCCTTTTCTGC
AGAATCTGTGGAGGTGGAGACAGAGAGAAGAGGCATTACTCCCCATTCCGGATCTCCCCATTTGGTTC
ATGTACATAGCTCTGCCAGCCAGAACCAGAGCCTTGTGTCTAACACTGGTTGAAAAGATTCACTCTGG
TTACGAAGCTCCTCGAATCCCTGTAGATAAAAAGAAATTTTACCACAACACACACTCCAGGATGTGTGTTT
CTTGAAGTAGATGAAAGAGCAGTGCCTTTGCTGGTTACCTACCTCAGGATCTGATTGGAACATCGATCT
TAACATACTTGCACCCAGAAGATCGGCCTCTGATGGTTGCCATACACCAAAAAGTTTTAAAGTATGCCGG
CCACCCCTCCGTTTGAACACTCGCCCGTCAGATTCTGCACTCAGAACGGAGAGTATGTCATTCTGGATTCC
AGCTGGTCCAGCTTTGTCAACCCCTGGAGCCGGAAGGTCTCCTTCATCATTGGTGCACATAAAGTCCAAA
CGAGTCCATTAATGAAGATGTTTTTGGCCACCAGAATAAAAAAGGCAGCCAGTAACGACAAGACATAGC
AGAATTACAAGAACAATTCACAAACTTCTCTTGACGCCGTTTATGCTAGTGCTCCAGTGCTACGGG
AGCCTGGCAGCAGCGGCTCACAGGAGCAGCACGTCAGCATCACCTTTCGAGTGAGTCCAGCGGGCACT
GTCCGGAGGAAGCCAGCATGAGCAGATGACCTGCAGCAGGTCTATGCCAGTGTAAACAAAATTAAGAA
TGTGGGCAACAGCTCTACATCGAGTCCATGGCCAGATCATCAGTGAAGCCAGTGGCAGAGACGTGCGTG



[View online »](#)

GAACCGCAGGGTGGTGTATGAGCAGAAGGACTTATCTTCCTCTCAGACACTGAAAAATAAAAGCACCACGG
 ATACTGGCTCCGGTGGCAATCTGCAGCAAGAGCAGCCAGCTCGTCTATCAGCAGATGAACTGTATCGA
 CAGTGTATCAGGTACCTGACAAGCTACAGCCTCCCGGCCTTAAAAAGAAAGTGCATCTCCTGCACAAAC
 ACATCTTCATCCTCAGAAGAAGCAAGCAATCCCGGAGGTGGACAGCAGCCAGAGAGACACGGAACAGC
 TCCTGGACATACGGAAACAGGGAACAACCTGGACCATCCACAGACATCGAAGGAGGTGCTGCTCGGACCCT
 GTCCACCGCCACTGAGCGTGGCGTCTGGCATCAGCCAGTGCAGCTGCAGCAGCACCTCGGCCACGCT
 CCGCCCTACAGTACAGCAAGAGTGTGGCGTGAAGCCGTGGCCCTGAGAAGCAAGCCCTCTC
 ACCTGGCTGCAGGAGATTTAAGCACGTGGGGCTCACAGCAGCTGCTCTCTGCACACACAGAAAGGA
 AGAGCAGAACTACGTTGACAGGTTCCGGGAAAAGATCCTGACCTCGCCCTACGGTTGCTATCTTCAGCAA
 GAGAGCAGAAACCGTGCTCAGTACTCCTGTGTTCAAGCAGGGTCCACTGCTAAGCACAGCAGATGTGCTG
 GAAGCGAGAGGCAGAAGCACAACGAAAGAAGTTGCCAGCACCTGTGGACACCAGCAGCCCCGGTGCCCA
 CCTCTGTCCCATGTACAGGACTCCTCCCGATGAGCAGCACTGGGGCCATCCGCTAGCCCTCCCC
 CTGGCGCAGGCTTAGCATTCCCTCGGCCCTGGTAGTCCCAGCCAGACCCCTATCTCTCCCTCTT
 TCCCCCTCAAGATATGGCTCTCAGGGAGTGGGGTCTCGGCAGCTGGGGAGCTGCAGCCGATGTCC
 ACCTCTGTCCGCCGCCAGGCTGTTGCCGCTTCCCTCCGCTTACGTGGATACTTTGATGACCATC
 TTCTGACAACGCCCTCTTCCCTCTGTGGCCGCCCTCGTTCTCCCATACCCATCCCTGGGGGCCG
 CAGGGTCTTGAACGGCACCCCTTAGTACCAGCAATGGCTCAAACCCGGAACCAACCCTTCAGGCCA
 CAGCAAAGGAGAGTGGAGGAGAACTGGGAGGCACACAGTGAAGAGCTTCCGTTCACTAGCTCACGGAGC
 AGTTCACCGTTACAGTTAAATTTACTCCAGGAAGAAATGCCTGCGCCGTGAGTCCGCAGCAGCAGTGA
 GAAGAGGCGCTGGCCAGACGCTAAGCATCACTGTGTTACAGGTCCCAGTGGCAGTAGGAGCCGTCAGT
 CACCTCTGGTGAAGTGGCCACGGCAACAGCGCAGCAGGAGTGTCCGTCTGCTGCTGCCTCAGGAAGCAGT
 GCCAGCAGTATACTTCACTAGCACTGACTATGCTTCTGAAGTCTCTGAAAACAGACAGAGGCCACAGG
 ATAGACAGAGAGACGAAGCCCTTCCCGGGCGGCTGAAGAGTCCATCTGGAGAATGATAGAGCCGACACC
 AGAGTGTGTTCTCATGACATAACAGGTGCCCGAGAGGGGTGAGAGGAGGTGCTGAAGCAGGAGCTGGAG
 AAGCTCCAGAGCATGGAACAGCAGCAGCCCTGTTCTCTCCCGCAGAGGGAGGAGCTGGCCAAGTGC
 GCTCTGGATCCACAGCCACACAGCCCTCAGGAGGGACACCTCCAGAGCTGTGTCGCTGTGAAGACAG
 AGGTTCACTGGGTGACACTGCAGAGGCTCTGGAACAGCACCCAGCAGAAGACACCAGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG221637 representing NM_011067
 Red=Cloning site Green=Tags(s)

MDPCGDPAVLGGDCPQTRGPGQLQGASGQEGPLQGTQVDSHSEHEDRNRMSEELIMVVQEMKYPFAERH
 TKPSTLDALNYALRCVHSVQANSDFQSLGPRGAHQADTVVYSLLEDLTALASEHTSKNTDTFAAVFSFLS
 GRLVHISEQAALILNSKRGLKSVHFVDLLAPQDVRAFYAHTAPTQLPFWNNWTQRASQYECAPAKPFFC
 RICGGGDREKRHYSFPRILPYLVHVHSSAQPEPEPCCLTLVEKIHSGYEAPRIPVDKRIFTTHTHPGCVF
 LEVDERAVPLLGYPQLDIGTSILTYLHPEDRPLMVAIHQKVLKYAGHPPFEHSPVRFCTQNGEYVILDS
 SWSSFVNPWSRKVSFIIIGRHKVQTSPLNEDVFATRICKAASNDKDIAELQEIQHKLQLPVPHASASSGYG
 SLGSSGSQEQHVSITSSSESSGHCPPEGQHEQMTLQVYVYASVNIKNVGGQLYIESMARSSVKPVAETCV
 EPQGGDEQKDLSSQTLKNKSTTDTGSGGNLQQEQPSSSYQQMNCIDSVIRYLTYSYLPALKRKCISCTN
 TSSSSEEAKPIPEVDSSQRDTEQLLDIRKQGTTPSTDIIEGGAARTLSTAALSVASGISQCSSTS
 PPLQSAESVAVACKPWALRTKASHLAAGGFKHVGLTAAVLSAHTQKEEQNYVDRFREKILTSPYGCYLQQ
 ESRNRAQYSCVQAGSTAKHSRCAGSERQKHKKKLPAPVDTSSPGAHLCPHVTGLLPDEQHWGSPASPS
 LGAGLAFPSALVVPSTPYLLPSFPLQDMASQGVGSAAGAAAGCPPLSAGPQAVAAFPASAYVDTLMTI
 FLHNAFLFPLWPPSPYPSLGAAGSSELAPLVPAMAPNPEPTTSGHSQRRVEENWEAHSEELPFISSRS
 SSPLQLNLLQEEMPAPSEADAVRRGAGPDAKHHCVTGPSGSRHCTSGELATAAQECPSAAASGSS
 ASSIYFSSDYASEVSENRRPQRQRDEALPGAAEESIWRMIERTPECVLMTYQVPERGEEVVKQDLE
 KLQSMEEQQPLFSPAQREELAKVRSWIHSHAPQEGHLQSCVACEDRGSVGDTAEVLEQHPAEDTS

TRTRPLE - GFP Tag - V

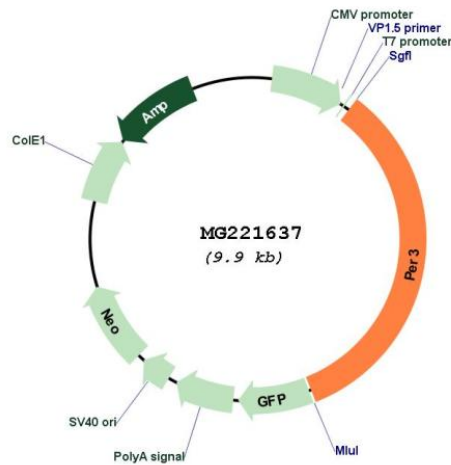
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_011067

ORF Size: 3339 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:	<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_011067.2</u>
RefSeq Size:	5953 bp
RefSeq ORF:	3342 bp
Locus ID:	18628
UniProt ID:	<u>O70361</u>
Cytogenetics:	4 E2
Gene Summary:	<p>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. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2014]</p>