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Product datasheet for SC309952

PER3 (NM_016831) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PER3 (NM_016831) Human Untagged Clone
Tag:	Tag Free
Symbol:	PER3
Synonyms:	FASPS3; GIG13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>SC309952 representing NM_016831.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCCCCGCGGGGAAGCTCCTGGCCCCGGGAGACGGGGGGCTAAGGACGAGGCCCTGGGCGAAGAATCG
GGGGAGCGGTGGAGCCCCGAGTTCCATCTGCAGAGGAAATTGGCGGACAGCAGCCACAGTGAACAGCAA
GATCGAAACAGAGTTTCTGAAGAACTTATCATGGTTGTCCAAGAAATGAAAAAATACTTCCCCTCGGAG
AGACGCAATAAACCAAGCACTCTAGATGCCCTCAACTATGCTCTCCGCTGTGTCCACAGCGTTCAAGCA
AACAGTGAGTTTTTCCAGATTCTCAGTCAGAATGGAGCACCTCAGGCAGATGTGAGCATGTACAGTCTT
GAGGAGCTGGCCACTATCGCTTCAGAACACACTTCCAAAAACACAGATACCTTTGTGGCAGTATTTTCA
TTTCTGTCTGGAAGGTTAGTGCACATTTCTGAACAGGCTGCTTTGATCCTGAATCGTAAGAAAGATGTC
CTGGCGTCTTCTCACTTTGTTGACCTGCTTGCACCTCAAGACATGAGGGTATTCTACGCGCACACTGCC
AGAGCTCAGCTTCCTTTCTGGAACAACTGGACCCAAAGAGCTGCACGGTATGAATGTGCTCCGGTGAAA
CCTTTTTTCTGCAGGATCCGTGGAGGTGAAGACAGAAAGCAAGAGAAGTGTCACTCCCCATTCCGGATC
ATCCCCTATCTGATTCATGTACATCACCCTGCCCAGCCAGAATTGGAATCGGAACCTTGCTGTCTCACT
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CAGGACCTGATTGGAACATCGATCCTAAGCTACCTGCACCCTGAAGATCGTTCTCTGATGGTTGCCATA
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CAGGTCTATGCCAGTGTGAACAAAATTAAAAATCTGGGTCAGCAGCTCTACATTGAGTCAATGACCAAA
TCATCATTCAAGCCAGTGACGGGGACACGCACAGAACCGAATGGTGGTGGTGAATGTAAGACCTTTACT
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TCCTTCCACCAAACACTGAAAAACAATAGTGTGTACACTGAGCCCTGTGAGGATTTGAGGAACGATGAG
CACAGCCCATCCTATCAACAGATCAACTGTATCGACAGTGTCATCAGATACCTGAAGAGCTACAACATT
CCAGCTTTGAAAAGAAAGTGTATCTCCTGTACAAATACAACTTCTTCCTCCTCAGAAGAAGACAAACAG
AACCACAAGGCAGATGATGTCCAAGCCTTACAAGCTGGTTTGCAAATCCCAGCCATACCTAAATCAGAA
ATGCCAACAAATGGACGGTCCATAGACACAGGAGGAGGAGCTCCACAGATCCTGTCCACGGCGATGCTG
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GCCAGGGATGCTACCCTCTTCTGTGAGCCCTGGACCCTGAACATGCAGCCAGCCCCTTTGACCTCGGAA
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GCCGCGACCTCACCCGGAAGAGAATACGCAGCCCCCGGAACTGCACCGGAAGGCCTGCATGGGCTGCCC
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ACCAGCCAAAGGAGAGAGGAGGAAAAGTGGGAGGCACAAAGCGAGGGGCACCCGTTCATTACTTCGAGA
AGCAGCTCACCCTTGCAGTTAAACTTACTTCAGGAAGAGATGCCCAGACCCTCTGAATCTCCAGATCAG
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CCTCCCATGAAGAATCCATCCCATCCTACTGCCAGCACACTGTCCATGGGATTGCCTCCCAGCAGGACT
CCATCCCATCCTACTGCCACTGTTCTGTCCACGGGGTCACCTCCCAGCGAATCCCCATCCAGAACTGGT
TCAGCAGCATCAGGAAGCAGCGACAGCAGTATATACCTTACTAGTAGTGTTTATTCTTCTAAAATCTCC
CAAAATGGGCAGCAATCTCAGGACGTACAGAAAAAAGAAACATTTCCTAATGTCGCCGAAGAGCCCATC
TGGAGAATGATACGGCAGACACCTGAGCGCATTCTCATGACATACCAGGTACCTGAGAGGGTTAAAGAA
GTTGTACTAAAAGAAGACCTGGAAAAGCTAGAAAGTATGAGGCAGCAGCAGCCCCAGTTTTCTCATGGG
CAAAAGGAGGAGCTGGCTAAGGTGTATAATTGGATTCAAAGCCAGACTGTCACTCAAGAAATCGACATT
CAAGCCTGTGTCACTTGTGAAAATGAAGATTCAGCTGATGGTGCGGCCACATCCTGTGGTCAGGTTCTG
GTAGAAGACAGCTGTTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: SgfI-MluI

ACCN: NM_016831

Insert Size: 3606 bp

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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 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
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_016831.2
RefSeq Size:	6309 bp
RefSeq ORF:	3606 bp
Locus ID:	8863
UniProt ID:	P56645
Cytogenetics:	1p36.23
Domains:	PAS
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Circadian rhythm - mammal
MW:	131.9 kDa

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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. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2014]
Transcript Variant: This variant (4) uses alternate in-frame splice junctions at three exons compared to variant 1. The resulting isoform (4) has the same N- and C-termini but is shorter compared to isoform 1.

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