

Product datasheet for **SC322615**

BMAL1 (ARNTL) (NM_001178) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BMAL1 (ARNTL) (NM_001178) Human Untagged Clone
Tag:	Tag Free
Symbol:	BMAL1
Synonyms:	bHLHe5; BMAL1; BMAL1c; JAP3; MOP3; PASD3; TIC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for SC322615
 TTAGGGAAGGCAGAAAGTAGGTCAGGGACGGAGGTGCCTGTTTACCCGCGCCGGACTCAC
 CGCCGCCCGCCGCGGGATCCGAGTGCGGGCGGGGCGGGGCGCTCCCGGCGAGCCAC
 GGTGGTGTGGCTAGAGTGTATACGTTTGGACCAAGCTTAACTTTTCCAATGTGGAATC
 CTGGGCCCTTATTGGTCCGATGTCATAGGAATCTACGCTAGAGGGCTTCCTGTGTGCC
 GGCCTGTGGTTTTTGAAGAAGCTGACCGCCTGAAAAGAAATTATAAAACATGAAAATC
 GACTTGTGACTTCAGATCATCCAATGGCAGACCAGAGAATGGACATTTCTTCAACCATCA
 GTGATTTTATGTCGCCGCGCCACCGACTGCTTCCAGCTCTCTTGGTACCAGTGGTG
 TGGATTGCAACCGCAAACGGAAGGCAGCTCCACTGACTACCAAGAAAGCATGGACACAG
 ACAAGATGACCCTCATGGAAGTTAGAATATACAGAACCAAGGAAGGATAAAAAATG
 CAAGGGAAGCTCACAGTCAGATTGAAAAGCGGCGTCGGGATAAAATGAACAGTTTTATAG
 ATGAATTGGCTTCTTGGTACCAACATGCAACGCAATGTCCAGGAAATTAGATAAACTTA
 CTGTGCTAAGGATGGCTTTCAGCACATGAAAACATTAAGAGGTGCCACCAATCCATACA
 CAGAAGCAAACATAAAACCAACTTTTCTATCAGACGATGAATTGAAACACCTCATTCTCA
 GGGCAGCAGATGGATTTTTGTTTGTCTAGGATGTGACCGAGGGAAGATACTCTTTGTCT
 CAGAGTCTGTCTCAAGATCCTCAACTACAGCCAGAATGATCTGATTGGTCAGAGTTTGT
 TTGACTACCTGCATCCTAAAGATATTGCCAAAGTCAAGGAGCAGCTCTCCTCCTGACA
 CCGCACCCCGGGAGCGGCTCATAGATGCAAAAAGTGGACTTCCAGTTAAAACAGATATAA
 CCCCTGGGCCATCTCGATTATGTTCTGGAGCACGACGTTCTTTCTTGTAGGATGAAGT
 GTAACAGGCCCTCAGTAAAGGTTGAAGACAAGGACTTCCCCTCTACCTGCTCAAAGAAAA
 AAGATCGAAAAAGCTTCTGCACAATCCACAGCACAGGCTATTTGAAAAGCTGGCCACCCA
 CAAAGATGGGGCTGGATGAAGACAACGAACAGACAATGAGGGGTGAACCTCAGCTGCC
 TCGTCGCAATTGGACGACTGCATTCTCATGTAGTTCCACAACAGTGAACGGGGAATCA
 GGGTGAATCTATGGAATATGTTTCTCGGCACGCGATAGATGGAAAGTTTGTGTTTGTAG
 ACCAGAGGGCAACAGCTATTTTGGCATATTTACCACAAGAACTTCTAGGCACATCGTGTT
 ATGAATATTTTACCAAGATGACATAGGACATCTTGCAGAATGTCATAGGCAAGTTTTAC
 AGACGAGAGAAAAAATTACAATAATTGCTATAAATTTAAAAATCAAAGATGGTCTTTTTA
 TCACACTACGGAGTCGATGGTTTCACTGAACTTGGACCAAGGAAGTAGAATATA
 TTGTCTCAACTAACTGTTGTTTTAGCCAACGCTCCTGGAAGGCGGGACCCAACCTTCC
 CACAGCTCACAGCATCCCCCACAGCATGGACAGCATGCTGCCCTCTGGAGAAGGTGGCC
 CAAAGAGGACCCACCCACTGTTCCAGGGATTCCAGGGGAACCCGGGCTGGGCGAGGAA
 AATAGGCCGAATGATTGCTGAGGAAATCATGGAATCCACAGGATAAGAGGGTCATCGC
 CTTCTAGCTGTGGCTCCAGCCCATTGAACATCACGAGTACGCCTCCCCCTGATGCCTCTT
 CTCCAGGAGGCAAGAAGATTTTAAATGGAGGGACTCCAGACATTCCTTCCAGTGGCCTAC
 TATCAGGCCAGGCTCAGGAGAACCCAGGTTATCCATATTTGATAGTTCTTCTATTCTTG
 GTGAGAACCCCATAGGTATAGACATGATTGACAACGACCAAGGATCAAGTAGTCCCA
 GTAATGATGAGGCAGCAATGGCTGTCATCATGAGCCTCTTGAAGCAGATGCTGGACTGG
 GTGGCCCTGTTGACTTTAGTGACTTGCCATGGCCGCTGTAACACTACATGTTGCTTTGG
 CAACAGCTATAGTATCAAAGTGCACTTACTGGTGGAGTTTTACAGTCTGTGAAGCTTACTG
 GATAAGGAGAGAATAGCTTTTATGTAAGTACTTATAAAAAGCCATCTCAGAGCCATTGAT
 ACAAGTCAATCTTACTATATGTAACCTCAGACAAAGTGGAACTAAGCCTGCTCCAGTGT
 TCCTCATCATTGATTATTGGGCTAGCTGTGGATAGCTTGCATTAATTGTATATTTGGAT
 TCTGTTTGTGTTGAATTTTTAATCATTGTGCACAGAAGCATCATTGGTAGCTTTTATAT
 GCAAAATGGTCATTTAGATGTATGGTGTGTTTTACTACTCAAAGAAGTCCCCATGTGGAT
 ATTTCTTATACTAATTGTATCATAAAGCCGTTTATTCTTCTTGAAGAATCCTTTACTA
 TAAATATGGGTTAAAGTATAATGTACTAGACAGTTAAATATTTTTAATAAATGTTTCCCT
 TGTTCTATAA
 AAAA

Restriction Sites: Please inquire

ACCN:	NM_001178
Insert Size:	2800 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).
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:	<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_001178.4</u> , <u>NP_001169.3</u>
RefSeq Size:	2812 bp
RefSeq ORF:	1878 bp
Locus ID:	406
UniProt ID:	<u>O00327</u>
Cytogenetics:	11p15.3
Domains:	PAS, HLH, PAC
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Circadian rhythm - mammal
Gene Summary:	<p>The protein encoded by this gene is a basic helix-loop-helix protein that forms a heterodimer with CLOCK. This heterodimer binds E-box enhancer elements upstream of Period (PER1, PER2, PER3) and Cryptochrome (CRY1, CRY2) genes and activates transcription of these genes. PER and CRY proteins heterodimerize and repress their own transcription by interacting in a feedback loop with CLOCK/ARNTL complexes. Defects in this gene have been linked to infertility, problems with gluconeogenesis and lipogenesis, and altered sleep patterns. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2014]</p> <p>Transcript Variant: This variant (1) uses an alternate in-frame splice junction at the 5' end of an exon compared to variant 4. The resulting isoform (a) is 1 aa shorter compared to isoform c. Variants 1, 2, 10, and 11 all encode isoform a.</p>