

## Product datasheet for **SC302507**

### **BMAL1 (ARNTL) (NM\_001030272) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BMAL1 (ARNTL) (NM_001030272) 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:**

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>OriGene sequence for SC322615
TTAGGGAAGGCAGAAAGTAGGTCAGGGACGGAGGTGCCTGTTTACCCGCGCCGGACTCAC
CGCCGCCCGCCGCGGGATCCGAGTGCGGGCGGGGCGGGGCGCTCCCGGCGAGCCAC
GGTGGTGTGGCTAGAGTGTATACGTTTGGACCAAGCTTAACTTTTCCAATGTGGAATC
CTGGGCCCTTATTGGTCCGATGTCATAGGAATCTACGCTAGAGGGCTTCCTGTGTGCC
GGCACTGTGGTTTTTGAAGAAGCTGACCGCCTGAAAAGAAATTATAAACATGAAAAATC
GCTTTGAGGTGACCAAGTCCAGAGGCCCTAACTCCTCCAAGCTGGATCTGGGGTGTA
GAACTGTGACTTCAGATCATCCAATGGCAGACCAGAGAATGGACATTTCTTCAACCATCA
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ACAAAGATGACCCTCATGGAAGTTAGAATATACAGAACCAAGGAAGGATAAAAAATG
CAAGGGAAGCTCACAGTCAGATTGAAAAGCGGCGTCGGGATAAAATGAACAGTTTTATAG
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CAGAAGCAAACCTACAAACCAACTTTTCTATCAGACGATGAATTGAAACACCTCATTCTCA
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TATCAGGCCAGGCTCAGGAGAACCCAGGTTATCCATATTTGATAGTTCTTCTATTCTTG
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GTAATGATGAGGCAGCAATGGCTGTCATCATGAGCCTCTTGAAGCAGATGCTGGACTGG
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CAACAGCTATAGTATCAAAGTGCAATTAAGTGGTGGAGTTTTACAGTCTGTGAAGCTTACTG
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ACAAGTCAATCTTACTATATGTAAGTTCAGACAAAGTGGAACTAAGCCTGCTCCAGTGT
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GCAAAATGGTCATTTAGATGATGGTGTGTTTTACTACTACAAAGAAGTCCCCATGTGGAT
ATTTCTTATACTAATTGTATCATAAAGCCGTTTATTCTTCTTGAAGAATCCTTTACTA
TAAATATGGGTTAAAGTATAATGTACTAGACAGTTAAATATTTTTAATAAATGTTTCCCT
TGTTCTATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAA
    
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**Restriction Sites:**

Please inquire

<b>ACCN:</b>	NM_001030272
<b>Insert Size:</b>	2800 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	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.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001030272.1</a></u> , <u><a href="#">NP_001025443.1</a></u>
<b>RefSeq Size:</b>	2757 bp
<b>RefSeq ORF:</b>	1878 bp
<b>Locus ID:</b>	406
<b>UniProt ID:</b>	<u><a href="#">O00327</a></u>
<b>Cytogenetics:</b>	11p15.3
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Circadian rhythm - mammal
<b>Gene Summary:</b>	<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 (2) differs in the 5' UTR and 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>