

## Product datasheet for **SC336873**

### **BMAL1 (ARNTL) (NM\_001297724) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BMAL1 (ARNTL) (NM_001297724) Human Untagged Clone
Tag:	Tag Free
Symbol:	ARNTL
Synonyms:	bHLHe5; BMAL1; BMAL1c; JAP3; MOP3; PASD3; TIC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

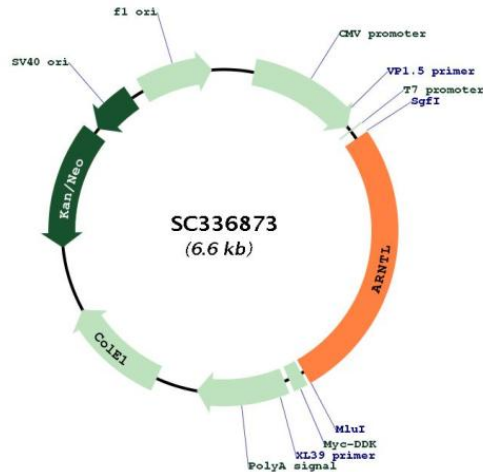


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Fully Sequenced ORF: >SC336873 representing NM\_001297724.  
Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGATTAATATAGAAAGCATGGACACAGACAAAGATGACCCTCATGGAAGTTAGAATATACAGAACAC
CAAGGAAGGATAAAAAATGCAAGGGAAGCTCACAGTCAGATTGAAAAGCGGCGTCGGGATAAAATGAAC
AGTTTTATAGATGAATTGGCTTCTTTGGTACCAACATGCAACGCAATGTCCAGGAAATTAGATAAACTT
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CTGCATTTCTATGTAGTTCCACAACAGTGAACGGGAAATCAGGGTAAAATCTATGGAATATGTTTCT
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CTTGGTGAGAACCCACATAGGTATAGACATGATTGACAACGACCAAGGATCAAGTAGTCCAGTAAT
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TTTAGTGACTTGCCATGGCCGCTGTAA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: SgfI-MluI

**Plasmid Map:**


**ACCN:** NM\_001297724

**Insert Size:** 1752 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).

**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\\_001297724.1](#)

**RefSeq Size:** 2875 bp

**RefSeq ORF:** 1752 bp

**Locus ID:** 406

**UniProt ID:** [O00327](#)

**Cytogenetics:** 11p15.3

**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** Circadian rhythm - mammal

**MW:** 64.2 kDa

**Gene Summary:** 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]

Transcript Variant: This variant (6) differs in the 5' UTR and contains an alternate exon compared to variant 4. The resulting isoform (d) has a shorter and distinct N-terminus compared to isoform c. Variants 6, 17, 18, 19, 20, and 21 all encode the same isoform (d).