

## Product datasheet for RC207870L4

### OriGene Technologies, Inc.

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# BMAL1 (ARNTL) (NM\_001178) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: BMAL1 (ARNTL) (NM\_001178) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: BMAL1

Synonyms: bHLHe5; BMAL1; BMAL1c; JAP3; MOP3; PASD3; TIC

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC207870).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_001178

ORF Size: 1875 bp



## BMAL1 (ARNTL) (NM\_001178) Human Tagged Lenti ORF Clone - RC207870L4

**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:** 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>

RefSeq Size:2863 bpRefSeq ORF:1878 bp

Locus ID: 406

UniProt ID: <u>000327</u>

Cytogenetics: 11p15.3

**Domains:** PAS, HLH, PAC

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

**Protein Pathways:** Circadian rhythm - mammal

**MW:** 68.7 kDa

**Gene Summary:** The protein encoded by this gene is a basic helix-loop-helix protein that forms a heterodimer

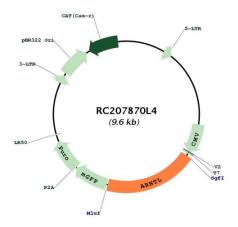
with CLOCK. This heterodimer binds E-box enhancer elements upstream of Period (PER1, PER2, PER3) and Cryptochrome (CRY1, CRY2) genes and activates transcription of these genes. PER and CRY proteins heterodimerize and repress their own transcription by interacting in a feedback loop with CLOCK/ARNTL complexes. 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

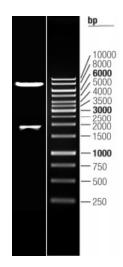
RefSeq, Jul 2014]



# **Product images:**



Circular map for RC207870L4



Double digestion of RC207870L4 using Sgfl and Mlul