

Product datasheet for **RN210481**

Arntl (NM_024362) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arntl (NM_024362) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Arntl
Synonyms:	Bmal1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN210481 representing NM_024362
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGACCAGAGAATGGACATTTCTCCACAATCAGTGACTTCATGTCTCCGGGCCCCACCGACCTGC
 TCTCCGGTTCCTTGAGCACCAGTGGTGTGGACTGCAACCGCAAGAGGAAAGGCAGTGCCACTGACTACCA
 AGAAAGTATGGACACAGACAAAGATGACCCTCATGGAAGTTAGAATATGCAGAACACCAAGGAAGGATC
 AAAAATGCAAGGGAGGCCACAGTCAGATTGAAAAGAGGCGTCGGGACAAAATGAACAGTTTTATTGACG
 AATTGGCTTCTTTGGTACCAACATGCAATGCGATGTCCCGAAGTTAGATAAACTCACCGTGCTCAGGAT
 GGCTGTTCCAGCACATGAAAACATTGAGAGGTGCCACCAACCCATACACAGAAGCAAACACTACAAGCCAACA
 TTTCTATCCGATACGAACTGAAACACCTAATTCTCAGGGCAGCAGATGGATTTTTGTTTGTGCTAGGAT
 GTGACCGAGGGAAGATCCTCTTTGTCTCGAATCTGTCTCAAGATCCTCAATTATAGCCAGAATGACCT
 TATTGGCCAGAGTTTGTTCGACTACCTGCATCCAAAAGATATTGCCAAAGTTAAGGAACAGCTATCTTCC
 TCGGACACTGCACCTCGGAGCGACTCATCGATGCGAAGACTGGACTTCCGGTAAAACGGATATAACCC
 CTGGGCCCTCCCGATTGTGCTCTGGAGCTCGGCGCTCTTTCTTGTAGGATGAAGTGCAACAGGCCCTTC
 AGTAAAGGTGGAAGATAAGGACTTCGCCTCCACCTGTTCAAAGAAAAAGCAGATCGAAAGAGCTTCTGC
 ACAATCCACAGCACAGGCTACTTGAAAAGCTGGCCACCCACAAAGATGGGGCTGGACGAAGACAGTGAAC
 CAGACAATGAGGGCTGCAATCTGAGCTGCCTCGTTGCAATCGGGCGACTGCACTCACACATGGTTCCACA
 GCCAGTGAACGGGAAATACGGGTGAAGTCTATGGAGTATGTGTCTCGACATGCAATAGATGGGAAATTT
 GTTTTTGTAGATCAGAGGGCGACGGCTATTTTGGCATATCTACCACAGGAACTTCTAGGTACATCGTGTT
 ATGAGTATTTTTCATCAAGATGATATAGGACACCTTGGGAATGTCACAGGCAAGTTTTACAGACAAGAGA
 AAAGATCACGACTAATTGCTATAAGTTTAAGATCAAAGATGGTTCCCTTTATCACACTACGAAGTCGATGG
 TTCAGTTTCATGAACCCGTGGACCAAGGAAGTAGAATACATTGTCTCAACCAACACTGTTGTTTTAGCCA
 ATGTCCTGGAAGGCGGGGACCAACCTTCCACAGCTCACAGCATCCCCCACAGCATGGACAGCATGCT
 GCCCTCTGGAGAAGGTGGCCCAAAGAGGACTCATCCACTGTTCCAGGCATTCCAGGGGAAACCAGAGCT
 GGAGCAGGAAAAATAGGTCGAATGATTGCCAGGAAATCATGGAATCCACAGGATAAGAGGGTCATCAC
 CTTCCAGCTGTGGCTCCAGCCACTGAACATCACAAAGTACGCCTCCCCCTGATGCTTCTCTCCAGGAGG
 CAAGAAGATTCTAAATGGAGGACTCCAGACATTCCTTCCGCTGGCTACTACCAGGCGAGGCTCAGGAG
 ACCCCAGGCTATCCCTACTCTGATAGTTCTGCTATTCTTGGTGAGAACCCCCACATAGGCATCGACATGA
 TAGACAACGACCAAGGATCAAGCAGCCCAAGTAAACGACGAGGCAGCAATGGCTGTATCATGAGCCTCTT
 GGAAGCAGATGCGGGGCTGGGTGGTCCCGTTGACTTTAGTGACTTGCCATGGCCACT**GTAG**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_024362
- Insert Size:** 1881 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_024362.2](#), [NP_077338.2](#)

RefSeq Size: 2991 bp

RefSeq ORF: 1881 bp

Locus ID: 29657

UniProt ID: [Q9EPW1](#)

Cytogenetics: 1q33

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. [provided by RefSeq, Jan 2014]