OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR230678

Arntl (NM_001243048) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arntl (NM_001243048) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arntl
Synonyms:	Arnt3; bHLHe5; Bmal1; BMAL1b; bmal1b'; MOP3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>MR230678 representing NM_001243048
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGACCAGAGAATGGACATTTCCTCAACCATCAGCGACTTCATGTCTCCGGGCCCCACCGACCTAC
TCTCCGGTTCCCTGGGCACCAGTGGTGTGGACTGCAATCGCAAGAGGAAAGGCAGTGCCACTGACTACCA
GTTAGAATATGCAGAACACCAAGGAAGGATCAAGAATGCAAGGGAGGCCCACAGTCAGATTGAAAAGAGG
CGTCGGGACAAAATGAACAGTTTCATTGATGAATTGGCTTCTTTGGTACCAACATGCAATGCAATGTCCA
GGAAGTTAGATAAACTCACCGTGCTAAGGATGGCTGTTCAGCACATGAAAACTTTGAGAGGTGCCACCAA
CCCATACACAGAAGCAAACTACAAGCCAACATTTCTATCAGATGACGAACTGAAACACCTAATTCTCAGG
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TATTGCCAAAGTTAAGGAACAGCTATCTTCCTCGGACACTGCGCCCCGGGAGCGACTCATTGATGCCAAG
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TCGGGCGCCTGCACTCGCACATGGTTCCACAACCAGCGAACGGGGAAATACGGGTGAAATCTATGGAGTA
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CGCCTCCCCCTGATGCCTCTTCTCCAGGAGGCAAGAAGATTCTAAATGGAGGGACTCCAGACATTCCTTC
CACTGGACTATTACCAGGGCAGGCTCAGGAGACCCCAGGGTATCCCTATTCTGATAGTTCTTCTATTCTT
GGTGAGAACCCCCACATAGGCATCGATATGATAGATAACGACCAAGGATCAAGTAGTCCCAGTAACGATG
AGGCAGCAATGGCTGTCATCATGAGCCTCTTGGAAGCAGATGCGGGGCTGGGTGGCCCCGTTGACTTTAG
TGACTTGCCATGGCCGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

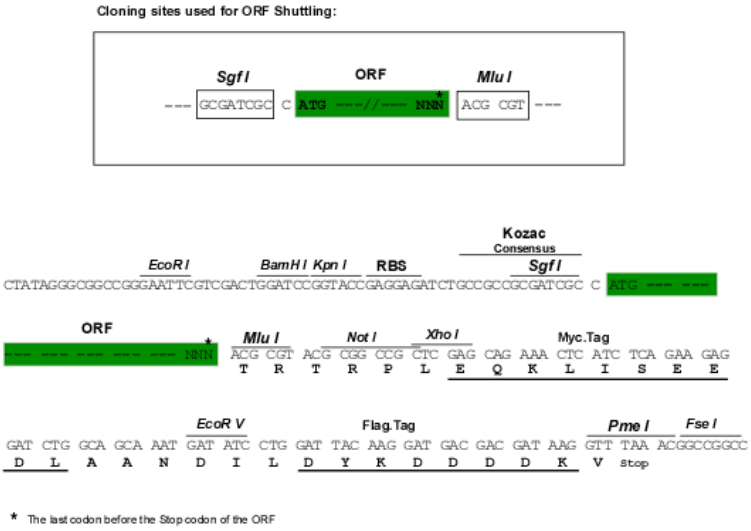
>MR230678 representing NM_001243048
Red=Cloning site Green=Tags(s)

MADQRMDISSTISDFMSPGPTDLLSGSLGTSGVDCNRKRKGSATDYQLEYAEHQGRIKNAREAHSQIEKR
RRDKMNSFIDELASLVPTCNAMSRKLDKLTVLRMAVQHMKTLRGATNPYTEANYKPTFLSDDELKHLILR
AADGFLFVVGCDRGKILFVSESVFKILNYSQNDLIGQSLFDYLHPKDIAKVKEQLSSSDTAPRERLIDAK
TGLPVKTDITPGPSRLCSGARRSFFCRMKCNRPSVKVEDKDFASTCSKKKADRKSFCTIHSTGYLKSWPP
TKMGLDEDNEPDNEGCNLSCLVAIGRLHSHMVPQPANGEIRVKSMEYVSRHAIDGKFVFVDQRATAILAY
LPQELLGTSCYEYFHQDDIGHLAECHRQVLQTREKITTNCYKFKIKDGSFITLRSRWFSFMNPWTKEVEY
IVSTNTVVLANVLEGGDPTFPQLTAPPHSMDSMLPSGEGGPKRTHPTVPGIPGGTRAGAGKIGRMIAEEI
MEIHRIRGSSPSSCGSSPLNITSTPPPDASSPGGKKILNGGTPDIPSTGLLPGQAQETPGYPYSDSSSIL
GENPHIGIDMIDNDQGSSSPSNDEAAMAVIMSLLEADAGLGGPVDFSDLPWPL

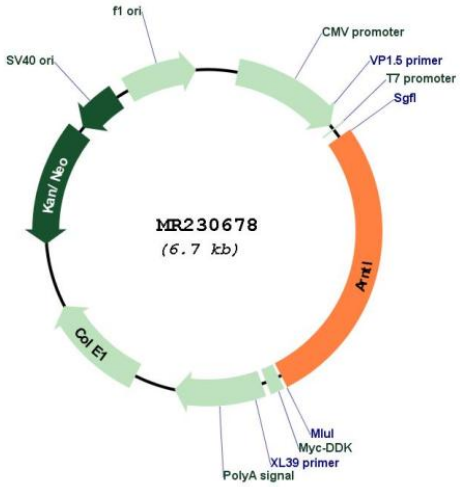
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001243048

ORF Size: 1839 bp

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:	NM_001243048.1, NP_001229977.1
RefSeq Size:	2628 bp
RefSeq ORF:	1842 bp
Locus ID:	11865
UniProt ID:	Q9WTL8
Cytogenetics:	7 59.17 cM
MW:	67.7 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. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2014]