

Product datasheet for **MG209553**

Arntl (NM_007489) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arntl (NM_007489) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Arntl
Synonyms:	Arnt3; bHLHe5; Bmal1; BMAL1b; bmal1b'; MOP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209553 representing NM_007489
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGGACCAGAGAATGGACATTTCTCAACCATCAGCGACTTCATGTCTCCGGGCCCCACCGACCTAC
 TCTCCGGTCCCTGGGCACCAGTGGTGTGGACTGCAATCGCAAGAGGAAAGGCAGTGCCACTGACTACCA
 AGAAAGTATGGACACAGACAAAGATGACCTCATGGAAGGTTAGAATATGCAGAACACCAAGGAAGGATC
 AAGAATGCAAGGGAGGCCACAGTCAGATTGAAAAGAGGCGTCGGGACAAAATGAACAGTTTCATTGATG
 AATTGGCTTCTTTGGTACCAACATGCAATGCAATGTCCAGGAAGTTAGATAAACTCACCGTGCTAAGGAT
 GGCTGTTCCAGCACATGAAAACCTTTGAGAGGTGCCACCAACCCATACACAGAAGCAAACCTACAAGCCAACA
 TTTCTATCAGATGACGAAGTAAACACCTAATTCTCAGGCAGCAGATGGATTTTTGTTTGTCTGATAGGAT
 GTGACCGAGGGAAGATCCTCTTTGTCTCCGAGTCTGTCTTCAAGATCCTCAATTATAGCCAGAATGACCT
 TATTGGCCAGAGCTTGTGTTGACTACCTGCATCCAAAAGATATTGCCAAAGTTAAGGAACAGCTATCTTCC
 TCGGACACTGCGCCCCGGGAGCGACTCATTGATGCCAAGACTGGACTTCCGGTAAAACGGATATAACCC
 CTGGGCCCTCCCGCTATGCTCTGGAGCCCGCCGCTCTTCTTCTGTAGAATGAAGTGCAACAGGCTTC
 AGTAAAGGTGGAAGATAAGGACTTCGCCTCTACCTGTTCAAAGAAAAAGCAGATCGAAAAAGCTTCTGC
 ACAATCCACAGCACAGGCTATTTGAAAAGCTGGCCACCCACGAAGATGGGGCTGGACGAAGACAATGAGC
 CAGACAACGAGGGCTGCAACCTCAGTGCCTCGTTGCAATCGGGCGCCTGCACTCGCACATGGTTCCACA
 ACCAGCGAACGGGAAAACGGGTGAAATCTATGGAGTACGTTTCTCGACACGCAATAGATGGGAAATTT
 GTTTTTGTAGATCAGAGGGCGACAGCTATTTTGGCGTATCTACCACAGGAACTCTAGGTACATCATGTT
 ATGAGTATTTTCATCAAGACGACATAGGACACCTCGCAGAATGTCACAGGCAAGTTTTACAGACAAGAGA
 AAAGATCACTAACTAATTGCTATAAGTTTAAAGATCAAAGATGGTTCTTTTATCACGCTACGAAGTCGATGG
 TTCAGTTTCATGAACCCGTGGACCAAGGAAGTTGAATACATTGTCTCAACCAACACTGTTGTTTTAGCCA
 ATGTCCTGGAAGGCGGGGACCAACCTTCCCGCAGCTAACAGCACCCCCCACAGCATGGACAGCATGCT
 GCCCTCTGGAGAAGGTGGCCCAAAGAGGACTCATCCACTGTCCCAGGCATTCCAGGGGAAACCAGAGCC
 GGAGCAGGAAAAATAGGTGCAATGATCGCGGAGGAAATCATGGAATCCACAGGATAAGAGGGTCATCGC
 CTTCCAGCTGTGGCTCCAGCCCCTGAACATCACAAAGTACGCCTCCCCCTGATGCCTCTTCTCCAGGAGG
 CAAGAAGATTCTAAATGGAGGGACTCCAGACATTCCTTCCACTGGACTATTACCAGGCGAGGCTCAGGAG
 ACCCCAGGGTATCCCTATTCTGATAGTTCTTCTATTCTTGGTGAGAACCCCCACATAGGCATCGATATGA
 TAGATAACGACCAAGGATCAAGTAGTCCAGTAACGATGAGGCAGCAATGGCTGTATCATGAGCCTCTT
 GGAAGCAGATGCGGGGCTGGGTGGCCCCGTTGACTTTAGTGACTTGCCATGGCCGCTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG209553 representing NM_007489
 Red=Cloning site Green=Tags(s)

MADQRMDISSTISDFMSPGPTDLLSGSLGTSGVDCNRKRKGSATDYQESMDTDKDDPHGRLEYAEHQGRI
 KNAREAHSQIEKRRRDKMNSFIDELASLVPTCNAMSRKLDKLTVLRMAVQHMKTLRGATNPYTEANYKPT
 FLSDDDELKHLILRAADGFLFVVGCDRGKILFVSESVFKILNYSQNDLIGQSLFDYLHPKDIAKVKEQLSS
 SDTAPRERLIDAKTGLPVKTDITPGPSRLCSGARRSFFCRMKCNRPVSVKVEDKDFASTCSKKKADRKSFC
 TIHSTGYLKSWPPTKMGLDEDNEPDNEGNCLSCLVAIGRLHSHMVPQPANGEIRVKSMEEVYSRHAIDGKF
 VFVDQRATAILAYLPQELLGTSCYEYFHQDDIGHLAECHRQVLQTRKITTNCYKFKIKDGSFITLRSRW
 FFSFMPWTKEVEYIVSTNTVVLANVLEGGDPTFPQLTAPPHSMDSMLPSGEGGPKRTHPTVPGIPGTRA
 GAGKIGRMIAEEIMEIHRIRGSSPSSCGSSPLNITSTPPPDASSPGGKILNNGTDPDIPSTGLLPGQAQE
 TPGYPYSDSSSILGENPHIGIDMIDNDQSSSPSNDEAAMAVIMSLEADAGLGGPVDFSDLPWPL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_007489

ORF Size: 1878 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_007489.4](#)

RefSeq Size: 2904 bp

RefSeq ORF: 1881 bp

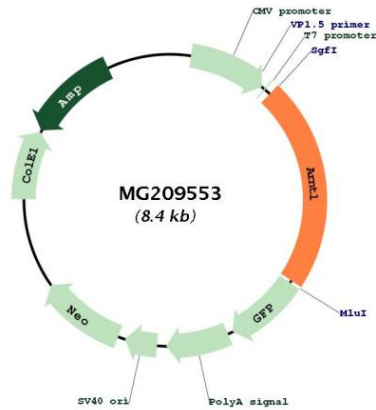
Locus ID: 11865

UniProt ID: [Q9WTL8](#)

Cytogenetics: 7 59.17 cM

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]

Product images:



Circular map for MG209553