

Product datasheet for **MR209553**

Arntl (NM_007489) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arntl (NM_007489) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arntl
Synonyms:	Arnt3; bHLHe5; Bmal1; BMAL1b; bmal1b'; MOP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR209553 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGACCAGAGAATGGACATTTCTCAACCATCAGCGACTTCATGTCTCCGGGCCCCACCGACCTAC
 TCTCCGGTTCCTGGGCACCAGTGGTGTGGACTGCAATCGCAAGAGGAAAGGCAGTGCCACTGACTACCA
 AGAAAGTATGGACACAGACAAAGATGACCTCATGGAAGGTTAGAATATGCAGAACCAAGGAAGGATC
 AAGAATGCAAGGGAGGCCACAGTCAGATTGAAAAGAGGCGTCGGGACAAAATGAACAGTTTCATTGATG
 AATTGGCTTCTTTGGTACCAACATGCAATGCAATGTCCAGGAAGTTAGATAAACTCACCGTGCTAAGGAT
 GGCTGTTCCAGCACATGAAAACCTTTGAGAGGTGCCACCAACCCATACACAGAAGCAAACCTACAAGCCAACA
 TTTCTATCAGATGACGAAGTAAACACCTAATTCTCAGGGCAGCAGATGGATTTTTGTTTGTCTGATAGGAT
 GTGACCGAGGGAAGATCCTCTTTGTCTCCGAGTCTGTCTTCAAGATCCTCAATTATAGCCAGAATGACCT
 TATTGGCCAGAGCTTGTGTTGACTACCTGCATCCAAAAGATATTGCCAAAGTTAAGGAACAGCTATCTTCC
 TCGGACACTGCGCCCCGGGAGCGACTCATTGATGCCAAGACTGGACTTCCGGTAAAACGGATATAACCC
 CTGGGCCCTCCCGCTATGCTCTGGAGCCCGCCGCTCTTCTTCTGTAGAATGAAGTGCAACAGGCTTC
 AGTAAAGGTGGAAGATAAGGACTTCGCCTCTACCTGTTCAAAGAAAAAGCAGATCGAAAAAGCTTCTGC
 ACAATCCACAGCACAGGCTATTTGAAAAGCTGGCCACCCACGAAGATGGGGCTGGACGAAGACAATGAGC
 CAGACAACGAGGGCTGCAACCTCAGTGCCTCGTTGCAATCGGGCGCCTGCCTCGCACATGGTTCCACA
 ACCAGCGAACGGGAAATACGGGTGAAATCTATGGAGTACGTTTCTCGACACGCAATAGATGGGAAATTT
 GTTTTTGTAGATCAGAGGGCGACAGCTATTTTGGCGTATCTACCACAGGAACTTCTAGGTACATCATGTT
 ATGAGTATTTTTCATCAAGACGACATAGGACACCTCGCAGAATGTCACAGGCAAGTTTTACAGACAAGAGA
 AAAGATCACAACTAATTGCTATAAGTTTAAAGATCAAAGATGGTTCTTTTATCACGCTACGAAGTCGATGG
 TTCAGTTTCATGAACCCGTGGACCAAGGAAGTTGAATACATTGTCTCAACCAACACTGTTGTTTTAGCCA
 ATGTCCTGGAAGGCGGGGACCAACCTTCCCGCAGCTAACAGCACCCCCCACAGCATGGACAGCATGCT
 GCCCTCTGGAGAAGGTGGCCAAAGAGGACTCATCCACTGTCCCAGGCATTCCAGGGGAAACCAGAGCC
 GGAGCAGGAAAAATAGGTGCAATGATCGCGGAGGAAATCATGGAATCCACAGGATAAGAGGGTTCATCGC
 CTTCCAGCTGTGGCTCCAGCCCCTGAACATCACAAAGTACGCCTCCCCTGATGCCTCTTCTCCAGGAGG
 CAAGAAGATTCTAAATGGAGGACTCCAGACATTCCTTCCACTGGACTATTACCAGGGCAGGCTCAGGAG
 ACCCCAGGGTATCCCTATTCTGATAGTTCTTCTATTCTTGGTGAGAACCCCCACATAGGCATCGATATGA
 TAGATAACGACCAAGGATCAAGTAGTCCAGTAACGATGAGGCAGCAATGGCTGTATCATGAGCCTCTT
 GGAAGCAGATGCGGGGCTGGGTGGCCCCGTTGACTTTAGTGACTTGCCATGGCCGCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR209553 protein sequence
 Red=Cloning site Green=Tags(s)

MADQRMDISSTISDFMSPGPTDLLSGSLGTSGVDCNRKRKGSATDYQESMDTDKDDPHGRLEYAEHQGRI
 KNAREAHSQIEKRRRDKMNSFIDELASLVPTCNAMSRKLDKLTVLRMAVQHMKTLRGATNPYTEANYKPT
 FLSDELKHLILRAADGFLFVVGCDRGKILFVSESVFKILNYSQNDLIGQSLFDYLHPKDIKVKQLSS
 SDTAPRERLIDAKTGLPVKTDITPGPSRLCSGARRSFFCRMKCNRPVSVKVEDKDFASTCSKKKADRKSFC
 TIHSTGYLKSWPPTKMGLDEDNEPDNEGCNLSCLVAIGRLHSHMVPQPANGAIRVKSMEYVSRHAIDGKF
 VFVDQRATAILAYLPQELLGTSCYEYFHQDDIGHLAECHRQVLQTRKITTNCYKFKIKDGSFITLRSRW
 FFSFMPWTKEVEYIVSTNTVVLANVLEGGDPTFPQLTAPPHSMDSMLPSGEGGPKRTHPTVPGIPGGTRA
 GAGKIGRMIAEEIMEIHRIRGSSPSSCGSSPLNITSTPPPDASSPGGKILNGGTPDIPSTGLLPGQAQE
 TPGYPYSDSSSILGENPHIGIDMIDNDQGSSSPSNDEAAMAVIMSLEADAGLGGPVDFSDLPWPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_007489

ORF Size: 1881 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: 2921 bp

RefSeq ORF: 1881 bp

Locus ID: 11865

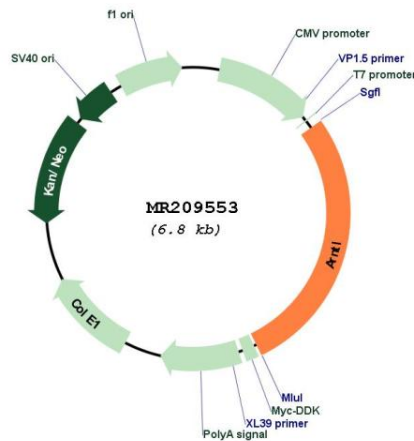
UniProt ID: [Q9WTL8](#)

Cytogenetics: 7 59.17 cM

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. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2014]

Product images:



Circular map for MR209553