

Product datasheet for **MR230545**

Arntl2 (NM_001289679) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arntl2 (NM_001289679) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arntl2
Synonyms:	4632430A05Rik; bHLHe6; BMAL2; CLIF; MOP9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR230545 representing NM_001289679
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGTTTCCAAGGAAACGCAGAGGCAGAGATCCCAGCCACTCCAGTCAGAATTCATGACAGACACAA
 CAGTGGAAAGTCTTCCCCAGAATCCCTTTGCCTCTCTTCTTTCAACAAGAACAGGAGTATCAGCGCCAG
 TGGCATCAGGGAAGCTCACAGCCAGATGAAAAAGCGTCGAGAGACAAAGATGAACCATCTGATTCAGAAA
 CTGTCTATCTATGATCCCTCCACACATCCCACGGCCACAAAAGTGGACAAGCTCAGCGTCTTGAGGAGGG
 CGGTGCAGTACTTGAGGTCTCTGAGAGGCATGACAGAGCTTTACTTAGGAGAAAAGTCTAAACCTTCATT
 TATTCAGGATAAGGAACTCAGTCACTTAATCCTCAAGGCAGCAGAAGGCTTCTGTTTGTGGTTGGATGC
 GAAAGAGGGAGAATTTTTACGTTTCTAAGTCTGTCTCCAAAACACTGCGTTATGATCAGGCTAGCTTGA
 TAGGACAGAATTTGTTGACTTCTACACCCAAAAGACGTCGCCAAAGTAAAGGAACAATTTCTTGTA
 TGGTTCACCAAGAGAGAAACCTATAGACACAAAACCTCTCAGGTTTACAGTCACCCCTACACTGGCGCA
 CCACGCATGCATTCTGGCTCCAGACGATCTTTCTTTTGAATGAAGAGCTGTACCGTCCCTGTCAAAG
 AAGAGCAGCCATGCTCGTCTGCTCAAAGAAGAAAGACCATAGAAAATCCACACCGTCCATTGCACTGG
 ATACTTGAGAAGCTGGCCTCTGAATGTTGTTGGCATGGAGAAAGAGTCCGGTGGTGGGAAGGACAGCGGT
 CCTTTACCTGCCTGTGGCTATGGGACGGTGCATCCATACATTGTCCCTCAAAGAGTGGCAAGATCA
 ACGTGAGACCGGCTGAGTTCATAACTCGCTTCGCAATGAACGGGAAATTCGTCTATGTTGACCAAAGGGC
 AACGGCAATTTTAGGATACCTGCCTCAGGAACTTTGGGAACTTCATGTTATGAATTTTATCAGGAT
 GACCACAGTAGTTGACTGACAAGCACAAGCAGACTCATACAAATTCAGAGTGAAGGATGGTGCCTCG
 TGACTTGAAGAGTGAGTGGTTCAGCTTCACAAACCCTTGACCAAAGAGCTGGAGTACATTGTGTCTGT
 CAACACATTGGTTTTGGGGCGCAGTGAGACCAGGCTGTCTTTGCTTATTGCGGGCGCAGCAGCCAGTCC
 TCCGAAGACTCATTTAGACAATCCTGCATCAATGTGCCCGGTGTATCCACGGGGACCGTCTTGGTGTG
 GGAGTATTGGAACAGATATTGCAATGAGGTTCTGAGTTTACAGAGATTACACTTTCATCCCCAGAAGA
 TGCAAGCCCTTCAGAAGAAGTGAGAGTACTGCAGTGTAAATGGTGGGAATGCCTATGGCCTGCATCC
 ACTAGGGAGCCTTTTGCAGTGAGCCCTTCTGAAACAGAGGTCTGGAGGCTGCCAGGCAACACCAGAGCA
 CTGAACCCGCCACCCTCACGGACCACTCCCAGTGCAGTGCAGTGGGTTTTGATGTCCTGTGTGA
 CAGTGACAGCATAGACATGGCTGCATTGATTAACCTCGAAGCAGAGGGGGCCTGGGTGACCCTGGG
 GACTTCAGTGACATCCAGTGGGCACTC

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230545 representing NM_001289679
 Red=Cloning site Green=Tags(s)

MEFPRKRRGRDSQPLQSEFMTDTTVESLPQNPFAALLSTRTGVSAPSGIREAHSQMEKRRRDKMNHLIQK
 LSSMIPPHIPTAHKLDKLSVLRRAVQYLRSLRGMTLEYLGENSKPSFIQDKELSHLILKAAEGFLFVVG
 ERGRIFYVSKSVSKTLRYDQASLIGQNLFDLHPKDVAKVKEQLSCDGSPPREKPIDTKTSQVYSHPYTGR
 PRMHSGSRRSFFFRMKSTVPVKEEQPCSSCSKKKDHKRFHTVHCTGYLRSWPLNVVGMKESGGGKDSG
 PLTCLVAMGRLHPYIVPQKSGKINVRPAEFITRFAMNGKFVYVDQRATAILGYLPQELLGTSCYEFHQD
 DHSSLTDKHKADSYKFRVKDGFVTLKSEWFSFTNPWTKELEYIVSVNTLVLRSETRL SLLHCGGSSQS
 SEDSFRQSCINVPGVSTGTVLGAGSIGTDIANEVL SLQRLHSSSPEDASPSEEVRDDCSVNGGNAYGPAS
 TREPFVSPSETEVLEAARQHSTEPAPHPGPLPGDSAQLGFDVLCSDSDSIDMAAFMNYLEAEGGLDGP
 DFSDIQWAL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001289679

ORF Size: 1707 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_001289679.1](#), [NP_001276608.1](#)

RefSeq Size: 2593 bp

RefSeq ORF: 1710 bp

Locus ID: 272322

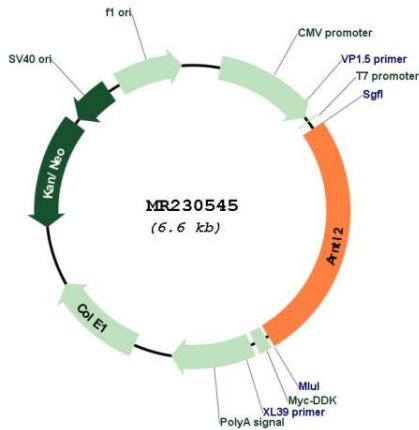
UniProt ID: [Q2VPD4](#)

Cytogenetics: 6 G3

MW: 63.7 kDa

Gene Summary: This gene encodes a basic helix-loop-helix transcription factor belonging to the PAS (Per, Arnt, Sim) superfamily. The PAS proteins play important roles in adaptation to low atmospheric and cellular oxygen levels, exposure to certain environmental pollutants, and diurnal oscillations in light and temperature. This protein forms a transcriptionally active heterodimer with the circadian Clock protein, the structurally related Mop4, and hypoxia-inducible factors, such as Hif1 alpha. Consistent with its role as a biologically relevant partner of circadian and hypoxia factors, this protein is coexpressed in regions of the brain such as the thalamus, hypothalamus, and amygdala. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Feb 2014]

Product images:



Circular map for MR230545