

## Product datasheet for **MC219357**

### Arntl2 (NM\_172309) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Arntl2 (NM_172309) Mouse Untagged Clone
Tag:	Tag Free
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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**Fully Sequenced ORF:** >MC219357 representing NM\_172309  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGTTTCCAAGGAAACGCAGAGGCAGAGATCCCAGCCACTCCAGTCAGAATTCATGACAGACACAA  
 CAGTGGAAAGTCTTCCCCAGAATCCCTTTGCCTCTCTTCTTTCAACAAGAACAGGAGTATCAGCGCCAG  
 TGGCATCAGGGAAGCTCACAGCCAGATGGAAAAGCGTCGGAGAGACAAGATGAACCATCTGATTCAGAAA  
 CTGTCTATGATCCCTCCACACATCCCCACGGCCACAAAAGTGGACAAGCTCAGCGTCTTGAGGAGGG  
 CGGTGCAGTACTTGAGGTCTCTGAGAGGCATGACAGAGCTTTACTTAGGAGAAAAGTCTAAACCTTCATT  
 TATTCAGGATAAGGAACTCAGTCACTTAATCCTCAAGGCAGCAGAAGGCTTCTGTTTGTGGTTGGATGC  
 GAAAGAGGGAGAATTTTTACGTTTCTAAGTCTGTCTCCAAAACACTGCGTTATGATCAGGCTAGCTTGA  
 TAGGACAGAATTTGTTTACTTCTACACCCAAAAGACGTCGCCAAAGTAAAGGAACAACCTTTCTGTGA  
 TGGTTCACCAAGAGAGAAACCTATAGACACAAAACCTCTCAGGTTTACAGTCACCCCTACACTGGCGCA  
 CCACGCATGCATTCTGGCTCCAGACGATCTTTCTTTAGAATGAAGAGCTGTACCGTCCCTGTCAAAG  
 AAGAGCAGCCATGCTCGTCTGCTCAAAGAAGAAAGACCATAGAAAATCCACACCGTCCATTGCACTGG  
 ATACTTGAGAAGCTGGCCTCTGAATGTTGTTGGCATGGAGAAAGAGTCCGGTGGTGGGAAGGACAGCGGT  
 CCTTTACCTGCCTGTGGCTATGGGACGGTGCATCCATACATTGTCCCTCAAAGAGTGGCAAGATCA  
 ACGTGAGACCGGTGAGTTCATAACTCGCTTCGCAATGAACGGGAAATTCGTCTATGTTGACCAAAGGGC  
 AACGGCAATTTTAGGATACCTGCCTCAGGAACCTTTGGGAACCTCATGTTATGAATTTTATCAGGAT  
 GACCACAGTAGTTGACTGACAAGCACAAGCAGTCTGCAGAGTAAGGAGAAAACTTACAGACTCAT  
 ACAAATTCAGAGTGAAGGATGGTGCCTTCGTGACTCTGAAGAGTGAAGTGGTTCAGCTTCACAAACCTTG  
 GACCAAAGAGCTGGAGTACATTGTGTCTGTCAACACATTGGTTTTGGGGCGCAGTGAGACCAGGCTGTCT  
 TTGCTTATTGCGGGCGCAGCAGCCAGTCTCCGAAGACTCATTTAGACAATCCTGCATCAATGTGCCCG  
 GTGATCCACGGGGACCGTCTTGGTGTGGGAGTATTGGAACAGATATTGCAAATGAGGTTCTGAGTTT  
 ACAGAGATTACACTCTTCATCCCCAGAAGATGCAAGCCCTTCAGAAGAAGTGAAGAGTACTGCAGTGTA  
 AATGGTGGGAATGCCTATGGGCTGCATCCACTAGGGAGCCTTTTGCAGTGAAGCCTTCTGAAACAGAGG  
 TCCTGGAGGCTGCCAGGCAACACCAGAGCACTGAACCCGCCACCCTCACGGACACTTCCCGGTGACAG  
 TGCCAGCTGGGTTTTGATGCTGTGTGACAGTACAGCATAGACATGGCTGCATTATGAATTACCTC  
 GAAGCAGAGGGGGCCTGGGTGACCCTGGGGACTTCAGTGACATCCAGTGGGCACT**TAG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3043\\_c04.zip](https://cdn.origene.com/chromatograms/ja3043_c04.zip)

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_172309

**Insert Size:** 1740 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\\_172309.2](#), [NP\\_758513.1](#)

**RefSeq Size:** 2623 bp

**RefSeq ORF:** 1740 bp

**Locus ID:** 272322

**UniProt ID:** [Q2VPD4](#)

**Cytogenetics:** 6 G3

**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 Hif1alpha. 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]  
Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).