

Product datasheet for **MC227245**

Arntl2 (NM_001289681) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Arntl2 (NM_001289681) Mouse Untagged Clone
Tag: Tag Free
Symbol: Arntl2
Synonyms: 4632430A05Rik; bHLHe6; BMAL2; CLIF; MOP9
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC227245 representing NM_001289681
Red=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAGAGCTGTACCGTCCCTGTCAAAGAAGAGCAGCCATGCTCGTCCTGCTCAAAGAAGAAGACCATA
GAAAATCCACACCGTCCATTGCACTGGATACTTGAGAAGCTGGCCTCTGAATGTTGTTGGCATGGAGAA
AGAGTCGGGTGGTGGGAAGGACAGCGGTCTTACCTGCCTTGTGGCTATGGGACGGTTGCATCCATAC
ATTGTCCCTCAAAGAGTGGCAAGATCAACGTGAGACCGGCTGAGTTCATAACTCGTTCGCAATGAACG
GGAAATTCGTCTATGTTGACCAAAGGGCAACGGCAATTTTAGGATACCTGCCTCAGGAACTTTTGGGAAC
TTCATGTTATGAATTTTTATCAGGATGACCACAGTAGTTTACTGACAAGCACAAGCAGTTCTGCAG
AGTAAGGAGAAAACTTACAGACTCATACAAATTCAGAGTGAAGGATGGTGCCTTCGTGACTCTGAAGA
GTGAGTGGTTCAGCTTACAAACCCTTGGACCAAAGAGCTGGAGTACATTGTGCTGTCAACACATTGGT
TTTGGGGCGCAGTGAGACCAGGCTGTCTTTGCTTCATTGCGGCGGCAGCAGCCAGTCCCGAAGACTCA
TTAGACAATCCTGCATCAATGTGCCCGGTGTATCCACGGGACCGTCTTGGTGTGGGAGTATTGGAA
CAGATATTGCAAATGAGTTCTGAGTTTACAGAGATTACACTTTCATCCCAGAAGATGCAAGCCCTTC
AGAAGAAGTGAGAGATGACTGCAGTGTAATGGTGGGAATGCCTATGGCCTGCATCCACTAGGGAGCCT
TTTGACGTGAGCCCTTCTGAAACAGAGGTCTGGAGGCTGCCAGGCAACACCAGAGCACTGAACCCGCC
ACCCTCACGGACCACTTCCCGGTGACAGTGCCAGCTGGGTTTTGATGTCTGTGTGACAGTGACAGCAT
AGACATGGCTGCATTCATGAATTACCTCGAAGCAGAGGGGGCCTGGGTGACCCTGGGGACTTCAGTGAC
ATCCAGTGGGCACT**TAG**

ACGGCTACGGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001289681



Insert Size:	1068 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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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:	<u>NM_001289681.1, NP_001276610.1</u>
RefSeq Size:	2547 bp
RefSeq ORF:	1068 bp
Locus ID:	272322
UniProt ID:	<u>Q2VPD4</u>
Cytogenetics:	6 G3
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (4) uses an alternate splice site in the 5' region and initiates translation at a downstream in-frame start codon, compared to variant 1. The encoded isoform (4) has a shorter N-terminus than isoform 1.</p>