

Product datasheet for **RG234390**

ARNTL2 (NM_001248005) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARNTL2 (NM_001248005) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ARNTL2
Synonyms:	bHLHe6; BMAL2; CLIF; MOP9; PASD9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234390 representing NM_001248005
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGC**C

ATGGCGCGGAAGAGGAGGCTGCGCGGGAGGTGAGGTTGCCGGTGGCGAGGCGACGGCCCCAGGTAAAG
 TGTTGAGAGAGGAGAACCAGTGCATTGCTCCTGTGGTTTCCAGCCGCGTGAGTCCAGGGACAAGACCAAC
 AGCTATGGGGTCTTTACGCTCACACATGACAGAGTTTCCACGAAAACGCAAGGAAGTGATTGACACCCA
 TCCCAAGAAGCTCATAGCCAACTGAAAAGCGGAGGAGAGATAAAATGAATAACCTGATTGAAGAACTGT
 CTGCAATGATCCCTCAGTGCAACCCCATGGCGCGTAACTGGACAACTTACAGTTTTAAGAATGGCTGT
 TCAACACTTGAGATCTTTAAAAGGCTTGACAAATCTTATGTGGGAAGTAATTATAGACCATCATTTCTT
 CAGGATAATGAGCTCAGACATTTAATCCTTAAGACTGCAGAAGGCTTCTATTTGTGGTTGGATGTGAAA
 GAGGAAAAATCTCTTCGTTTCTAAGTCAGTCTCCAAAATACTTAATTATGATCAGGCTAGTTTGACTGG
 ACAAGCTTATTTGACTTCTTACATCCAAAAGATGTTGCCAAAGTAAAGGAACAACCTTTCTCTTTGAT
 ATTTACCAAGAGAAAAGCTAATAGATGCCAAAAGTGGTTTGCAAGTTCACAGTAATCTCCACGCTGGAA
 GGACACGTGTGTATTCTGGCTCAAGACGATCTTTTTCTGTCCGATAAAGAGTTGAAAACTCTGTCAA
 AGAAGAGCATGGATGCTTACCCAACTCAAAGAAGAAAGAGCACAGAAAATCTATACTATCCATTGCACT
 GGTTACTTGAGAAGCTGGCCTCCAAATATTGTTGGAATGGAAGAAGAAAGGAACAGTAAGAAAGACAACA
 GTAATTTTACCTGCCTTGTGGCCATTGGAAGATTACAGCCATATATTGTTCCACAGAACAGTGGAGAGAT
 TAATGTGAAACCAACTGAATTTAACCCTGTTTGCAGTGAATGGAAAATTTGTCTATGTAGATCAAAGG
 GCAACAGCGATTTTAGGATATCTGCCTCAGGAACCTTTGGGAACCTCTTGTTATGAATATTTTCATCAAG
 ATGACCACAATAATTTGACTGACAAGCACAAGCAGTTCTACAGAGTAAGGAGAAAATACTTACAGATTCT
 CTACAAATTCAGAGCAAAGATGGCTCTTTGTAACTTTAAAAAGCCAATGGTTTAGTTTCACAAATCCT
 TGGACAAAAGAACTGGAATATATTGTATCTGTCAACACTTTAGTTTTGGGACATAGTGAGCCTGGAGAAG
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 AATGTCTACTGGAACAGTACTTGGTGCTGGTAGTATTGGAACAGATATTGCAATGAAATCTGGATTTA
 CAGAGGTTACAGTCTTCTTCATACCTTGATGATTCGAGTCCAACAGGTTTAAAGAAATACTCATACTG
 TAAACTGCAGGAGTGTGATGGTGCACAGTTGGATTTCGATGCCCTATGTGACAATGATGACACAGCCATG
 GCTGCATTTA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

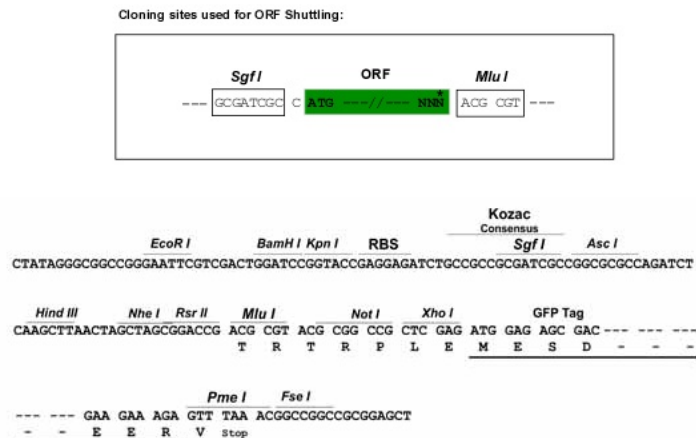
>RG234390 representing NM_001248005
 Red=Cloning site Green=Tags(s)

MAAEEEEAAAGGEVAGGEATAPGKVLREENQCIAPVVSSRVSPGTRPTAMGSFSSHMTFPRKRKGSDDP
 SQEAHSQTEKRRRDKMNNLIEELSAMIPOCNPMARKLDKLTVLRLMAVQHLRSLKGLTNSYVGSNYRPSFL
 QDNELRHLILKTAEGFLFVVGCEGKILFVSKSVSKILNYDQASLTGQSLDFLHPKDVAKVKEQLSSFD
 ISPREKLIDAKTGLQVHNLHAGRTRVYSGSRRSFFCRIKSKISVKEEHGCLPNSKKKEHRKFYTIHCT
 GYLRSWPPNIVGMEEERNSSKDNSNFTCLVAIGRLQPIYIPQNSGEINVKPTFIFRAVNGKFVYVDQR
 ATAILGYLPQELLGTSCYEYFHQDDHNNLTDKHKAVLQSKEKILTDSYKFRAKDGSFVTLKSQWFSFTNP
 WTKELEYIVSVNTLVLGHSEPGASFLPCSSQSSESSRQSCMSVPGMSTGTVLGAGSIGTDIANEILDL
 QRLQSSSYLDSSPTGLMKDHTVNCRSVMVHSWISMPYVTMMTPWLHL

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001248005

ORF Size: 1620 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_001248005.2](#)

RefSeq Size: 7191 bp

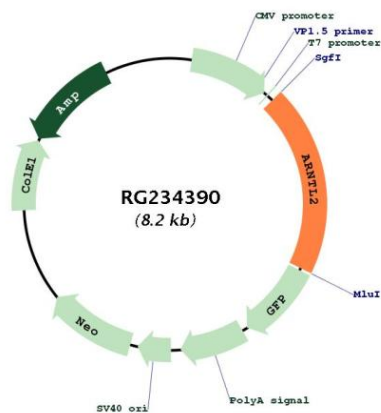
RefSeq ORF: 1623 bp

Locus ID: 56938

UniProt ID: [Q8WYA1](#)

Cytogenetics:	12p11.23
Protein Families:	Druggable Genome, Transcription Factors
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, Oct 2011]

Product images:



Circular map for RG234390