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Product datasheet for RC216969

ARNTL2 (NM_020183) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARNTL2 (NM_020183) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ARNTL2
Synonyms:	bHLHe6; BMAL2; CLIF; MOP9; PASD9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC216969 representing NM_020183
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCGGAAGAGGAGGCTGCGGCGGGAGGTAAAGTGTTGAGAGAGGAGAACCAGTGCATTGCTCCTG
TGGTTTCCAGCCGCGTGAGTCCAGGGACAAGACCAACAGCTATGGGGTCTTTCAGCTCACACATGACAGA
GTTTCCACGAAAACGCAAAGGAAGTGATTCAGACCCATCCCAGTCAGGAATCATGACAGAAAAAGTGGTG
GAAAAGCTTTCTCAGAATCCCCTTACCTATCTTCTTTCAACAAGGATAGAAATATCAGCCTCCAGTGGCA
GCAGAGTGGAAGATGGTGAACACCAAGTTAAAATGAAGGCCTTCAGAGAAGCTCATAGCCAAACTGAAAA
GCGGAGGAGAGATAAAATGAATAACCTGATTGAAGAACTGTCTGCAATGATCCCTCAGTGCAACCCCATG
GCGCGTAAACTGGACAAACTTACAGTTTTAAGAATGGCTGTTCAACACTTGAGATCTTTAAAAGGCTTGA
CAAATTCTTATGTGGGAAGTAATTATAGACCATCATTTCTTCAGGATAATGAGCTCAGACATTTAATCCT
TAAGACTGCAGAAGGCTTCTTATTTGTGGTTGGATGTGAAAGAGGAAAAATTCTCTTCGTTTCTAAGTCA
GTCTCCAAAATACTTAATTATGATCAGGCTAGTTTGACTGGACAAAGCTTATTTGACTTCTTACATCCAA
AAGATGTTGCCAAAGTAAAGGAACAACTTTCTTCTTTTGATATTTCACCAAGAGAAAAGCTAATAGATGC
CAAAACTGGTTTGCAAGTTCACAGTAATCTCCACGCTGGAAGGACACGTGTGTATTCTGGCTCAAGACGA
TCTTTTTTCTGTCGGATAAAGAGTTGTAAAATCTCTGTCAAAGAAGAGCATGGATGCTTACCCAACTCAA
AGAAGAAAGAGCACAGAAAATTCTATACTATCCATTGCACTGGTTACTTGAGAAGCTGGCCTCCAAATAT
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AGATTACAGCCATATATTGTTCCACAGAACAGTGGAGAGATTAATGTGAAACCAACTGAATTTATAACCC
GGTTTGCAGTGAATGGAAAATTTGTCTATGTAGATCAAAGGGCAACAGCGATTTTAGGATATCTGCCTCA
GGAACTTTTGGGAACTTCTTGTTATGAATATTTTCATCAAGATGACCACAATAATTTGACTGACAAGCAC
AAAGCAGTTCTACAGAGTAAGGAGAAAATACTTACAGATTCCTACAAATTCAGAGCAAAAGATGGCTCTT
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TCAGAAGAATCCTCTAGACAGTCCTGTATGAGTGTACCTGGAATGTCTACTGGAACAGTACTTGGTGCTG
GTAGTATTGGAACAGATATTGCAAATGAAATTCTGGATTTACAGAGGTTACAGTCTTCTTCATACCTTGA
TGATTCGAGTCCAACAGGTTTAATGAAAGATACTCATACTGTAAACTGCAGGAGTATGTCAAATAAGGAG
TTGTTTCCACCAAGTCCTTCTGAAATGGGGGAGCTAGAGGCTACCAGGCAAAACCAGAGTACTGTTGCTG
TCCACAGCCATGAGCCACTCCTCAGTGATGGTGCACAGTTGGATTTCGATGCCCTATGTGACAATGATGA
CACAGCCATGGCTGCATTTATGAATTACTTAGAAGCAGAGGGGGGCCTGGGAGACCCTGGGGACTTCAGT
GACATCCAGTGGACCCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC216969 representing NM_020183
Red=Cloning site Green=Tags(s)

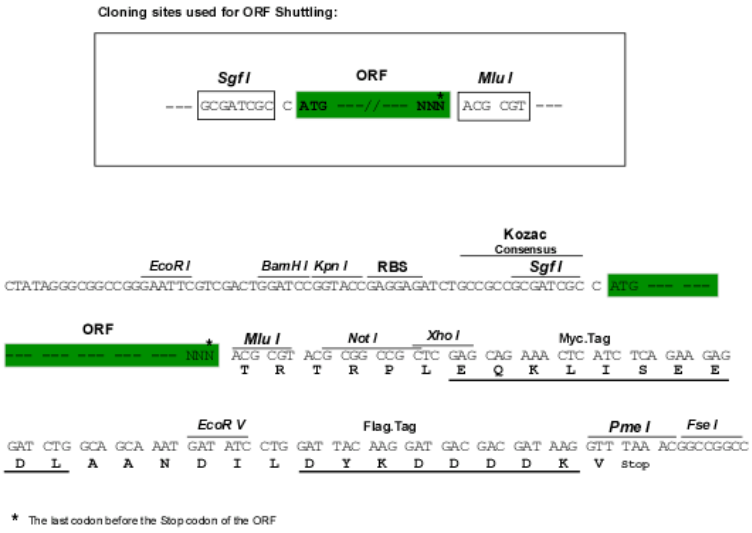
MAAEEEAAAGGKVLREENQCIAPVVSSRVSPGTRPTAMGSFSSHMTEFPRKRKGSDSDPSQSGIMTEKVV
EKLSQNPLTYLLSTRIEISASSGSRVEDGEHQVKMKAFREAHSQTEKRRRDKMNNLIEELSAMIPQCNPM
ARKLDKLTVLRMAVQHLRSLKGLTNSYVGSNYRPSFLQDNELRHLILKTAEGFLFVVGCERGKILFVSKS
VSKILNYDQASLTGQSLFDFLHPKDVAKVKEQLSSFDISPREKLIDAKTGLQVHSNLHAGRTRVYSGSRR
SFFCRIKSCKISVKEEHGCLPNSKKKEHRKFYTIHCTGYLRSWPPNIVGMEEERNSKKDNSNFTCLVAIG
RLQPYIVPQNSGEINVKPTEFITRFAVNGKFVYVDQRATAILGYLPQELLGTSCYEYFHQDDHNNLTDKH
KAVLQSKEKILTDSYKFRAKDGSFVTLKSQWFSFTNPWTKELEYIVSVNTLVLGHSEPGEASFLPCSSQS
SEESSRQSCMSVPGMSTGTVLGAGSIGTDIANEILDLQRLQSSSYLDDSSPTGLMKDTHTVNCRSMSNKE
LFPPSPSEMGELEATRQNQSTVAVHSHEPLLSDGAQLDFDALCDNDDTAMAAFMNYLEAEGGLGDPGDFS
DIQWTL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8018_e07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020183

ORF Size: 1908 bp

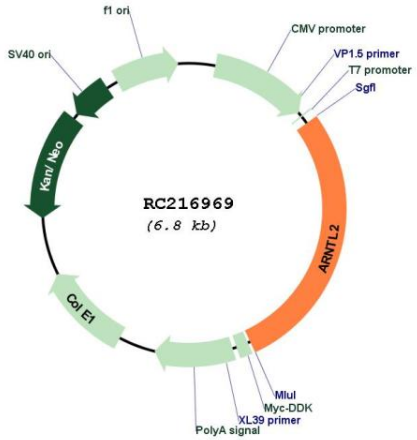
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_020183.5
RefSeq Size:	1930 bp
RefSeq ORF:	1911 bp
Locus ID:	56938
UniProt ID:	Q8WYA1
Cytogenetics:	12p11.23
Domains:	PAS, HLH
Protein Families:	Druggable Genome, Transcription Factors
MW:	70.7 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 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 RC216969