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Product datasheet for MR210673

Arnt (NM_001037737) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arnt (NM_001037737) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arnt
Synonyms:	bHLHe2; D3Ertd557e; Drnt; ESTM42; Hif1b; mKIAA4051; W08714
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>MR210673 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCGACTACAGCTAACCCAGAAATGACATCAGATGTACCATCGCTGGGTCCCACCATTGCTTCTG
GAAACCCTGGACCTGGGATTCAAGGTGGAGGAGCTGTTGTACAGAGGGCTATTAAGCGACGGTCAGGGCT
GGATTTTGATGATGAAGTAGAAGTGAACACTAAATTTTTGAGATGCGATGATGACCAGATGTGTAATGAC
AAAGAGCGGTTTGCCAGGTCGGATGATGAGCAGAGCTCTGCGGATAAAGAGAGACTTGCCAGGGAAAATC
ATAGTGAAATAGAACGGCGGCGACGGAACAAGATGACAGCTTACATCACAGAACTGTCAGACATGGTACC
TACATGTAGTGCCCTGGCTCGAAAACCAGACAAGCTAACCATCTTACGCATGGCCGTTTCTCACATGAAG
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TGAAACATTTGATCTTGGAGGCAGCAGATGGCTTTCTGTTTATTGTCTCCTGTGAGACTGGACGGGTGGT
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AGAGGCTGGCCAGGGGAGCAAATTCTGCCTAGTGGCCATTGGCAGGCTGCAGGTAACTAGTTCTCCCAAC
TGTACAGACATGAGTAACATTTGTCAGCCAACAGAGTTCATCTCCCGACACAACATTGAAGGGATATTCA
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CAGGTGCTGTCCGTCATGTTCCGATTCCGATCTAAGACCCGAGAATGGCTGTGGATGAGAACGAGCTCCT
TTACCTTCCAAAACCCTTATTCAGATGAAATTGAGTATATTATCTGCACCAACACCAATGTGAAGAACTC
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TCCCTAGAGATGGGTACAGGGCAGCTGCCATCCAGGCAGCAGCAGCAGCAGCACACAGAACTGGATATGG
TACCAGGAAGAGATGGGCTGGCCAGCTATAATCATTCCCAGGTTTCTGTCCAGCCTGTGGCAAGTGCAGG
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GAAATCTATCCCAGCATCACTGCAGATCAGAGTAAAGGCATCTCCTCCAGCACTGTCCCTGCCACCCAAC
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GCGTGGGTGTCTGGCCACAGTGGCAGGGCCAGCAGCCCCATCATCGGTCTAGTTCCAGTGAGCAGCATGT
TCAGCAGACACAAGCACAAGCACCTAGCCAGCCTGAGGTCTTTCAAGAAATGCTGTCCATGCTGGGAGAC
CAAAGCAACACCTACAACAATGAAGAATTTCCTGATCTAACTATGTTTCCCCCCTTTTCCGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR210673 protein sequence
Red=Cloning site Green=Tags(s)

MAATTANPEMTSDVPSLGPTIASGNPGPGIQGGGAVVQRAIKRRSGLDFDDEVEVNTKFLRCDDDQMCND
KERFARSDDEQSSADKERLARENHSEIERRRRNKMTAYITELSDMVPTCSALARKPDKLTILRMAVSHMK
SLRGTGNTSTDGSYKPSFLTDQELKHLILEAADGFLFIVSCETGRVVYVSDSVTPVLNQPQSEWFGSTLY
DQVHPDDVDKLREQLSTSENALTGRVLDLKTGTVKKEGQQSSMRMCMGSRRSFICRMRCGTSSVDPVSMN
RLSFLRNRCRNGLGSVKEGEPHFVVVHCTGYIKAWPPAGVSLPDDDPEAGQGSKFCLVAIGRLQVTSSPN
CTDMSNICQPTEFISRHNIEGIFTFVDHRCVATVGYQPQELLGKNIVEFCHPEDQQLLRDSFQQVVKLKG
QVLSVMFRFRSKTREWLWMRTSSFTFQNPYSDEIEYIICTNTNVKNSSQEPRPTLSNTIPRSQLGPTANL
SLEMGTGQLPSRQQQQQHTELDMVPGRDGLASYNHSQVSVQPVASAGSEHSKPLEKSEGLFAQDRDPRFP
EIYPSITADQSKGISSSTVPATQQLFSQGSSFPPNPRPAENFRNSGLTPPVTIVQPSSSAGQILAQISRH
SNPAQGSAPTWTSSSRPGFAAQQVPTQATAKTRSSQFGVNNFQTSSSFSAMSLPGAPTASSGTAAYPALP
NRGSNFPPETGQTTGQFQARTAEGVGVWPQWQGQQPHHRSSSSEQHVQQTQAQAPSQPEVFQEMLSMLGD
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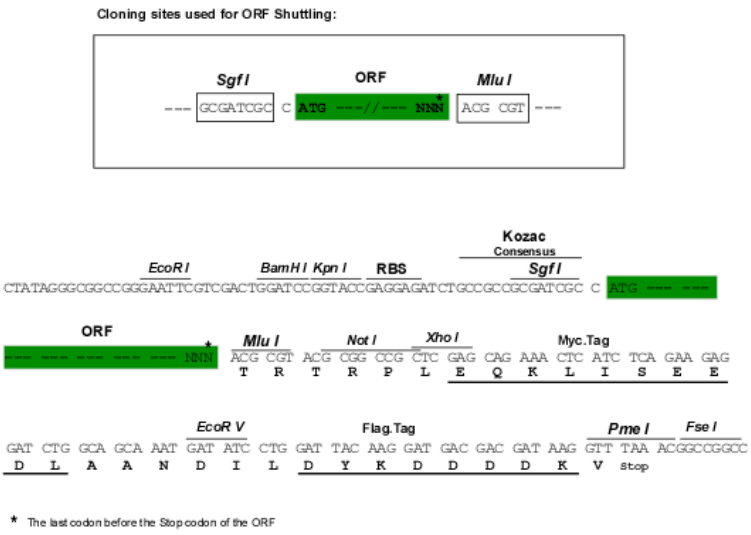
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN:	NM_001037737
ORF Size:	2376 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_001037737.2

RefSeq Size: 4370 bp

RefSeq ORF: 2376 bp

Locus ID: 11863

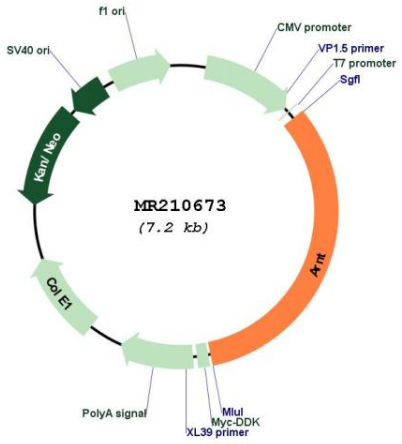
UniProt ID: P53762

Cytogenetics: 3 40.74 cM

MW: 87 kDa

Gene Summary: Required for activity of the Ah (dioxin) receptor. This protein is required for the ligand-binding subunit to translocate from the cytosol to the nucleus after ligand binding. The complex then initiates transcription of genes involved in the activation of PAH procarcinogens (By similarity). The heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters and functions as a transcriptional regulator of the adaptive response to hypoxia (PubMed:26245371, PubMed:27782878). The heterodimer ARNT:AHR binds to core DNA sequence 5'-TGCGTG-3' within the dioxin response element (DRE) of target gene promoters and activates their transcription (PubMed:28602820). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210673