

Product datasheet for MR229411

Atf4 (NM_001287180) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atf4 (NM_001287180) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Atf4
Synonyms:	Atf-4; C/ATF; CREB2; TAXREB67
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR229411 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACCGAGATGAGCTTCCTGAACAGCGAAGTGTGGCGGGGACTTGATGTCCCCCTTCGACCAGTCCG
GTTTGGGGGCTGAAGAAAGCCTAGGTCTCTTAGATGACTATCTGGAGGTGGCCAAGCACTTGAAACCTCA
TGGGTTCTCCAGCGACAAGGCGGGCTCCTCGAATGGCCGGCTATGGATGATGGCTTGGCCAGTGCCTCA
GACACCGCAAGGAGGATGCCTTTCCGGGACAGATTGGATGTTGGAGAAAATGGATCTGAAAGAGTTTG
ACTTCGATGCTCTGTTTCGAATGGATGACCTGGAACCATGCCAGATGAGCTCTTGACCAGTTGGATGA
CACATGTGATCTTTTGGCCCTCTAGTCCAAGAGACTAATAAGGAGCCCCCTCAGACAGTGAACCAATT
GGCCATCTCCCAGAAAAGTTAATAAAAAGTCGACCAGGTTGCCCCCTTTACATTCTTGACGCTTTCCCT
GTTCCCGAGGGTCTGTCTTCCACTCCAGAGCATTCTTTAGTTTAGAGCTAGGCAGTGAAGTTGATAT
CTCTGAAGGAGACAGGAAGCCTGACTCTGCTGCTTACATTACTCTAATCCCTCCATGTGTAAGGAGGAA
GACACTCCCTCTGACAATGACAGTGGCATCTGTATGAGCCAGAGTCTACCTGGGCTCTCCCAGCATA
GCCCTCCACCTCCAGGGCCCCACCAGACAATCTGCCTTCTCCAGGTGGTTCCCGTGGGTCTCCTCGGC
CAAACCTTATGACCCACCTGGAGTTAGTTTGACAGCTAAAGTGAAGACTGAGAAAATGGATAAGAAGCTG
AAAAAGATGGAGCAAAACAAGACAGCAGCCACTAGGTACCGCCAGAAGAAGCGGGCTGAGCAGGAGGCC
TCACTGGCGAGTGTAAGGAGCTAGAAAAAAGAATGAGGCTCTGAAAGAGAAGGCAGATTCTTGCCAA
GGAGATCCAGTATCTGAAAGACCTGATAGAAGAGGTCCGTAAGGCAAGGGGAAGAAGAGAGTTCCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR229411 protein sequence
Red=Cloning site Green=Tags(s)

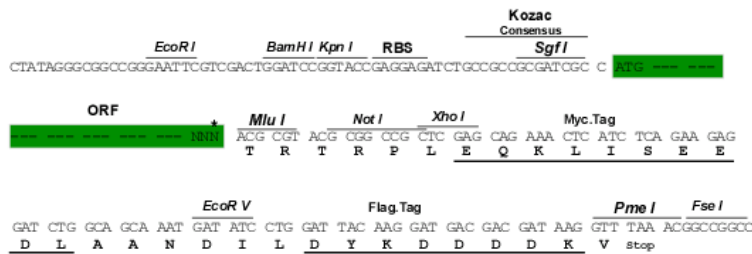
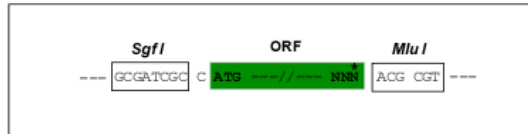
MTEMSFLNSEVLAGDLMSPFDQSGLGAEESLGLLDDYLEVAKHLKPHGFSDDKAGSSEWPAMDGLASAS
 DTGKEDAFSGTDWMLEKMDLKEFDLFRMDDLETMPDELLTTLDDTCDLFAPLVQETNKEPPQTVNPI
 GHLPESLIKVDQVAPFTFLQPFPCSPGVLSSSTPEHSFSLELGSEVDISEGDRKPDAAAYITLIPPCVKEE
 DTPSDNDSGICMSPESYLGSPQHSPSTRAPPDNLPSPGGSRGSPRPKPYDPPGVSLTAKVKTEKLDKKL
 KKMEQNKTAATRYRQKKRAEQEALTGECKELEKKNEALKEKADSLAKEIQYLKDLIEEVRKARGKKRVP

TRTRPLEQLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001287180

ORF Size: 1050 bp

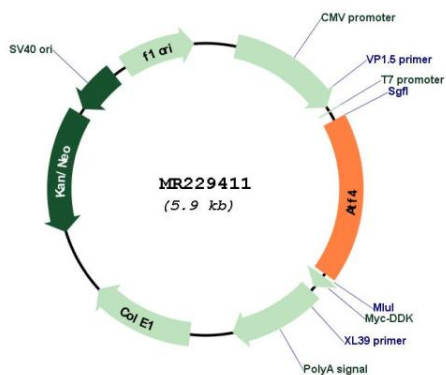
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<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_001287180.1, NP_001274109.1</u>
RefSeq Size:	1463 bp
RefSeq ORF:	1050 bp
Locus ID:	11911
UniProt ID:	<u>Q06507</u>
Cytogenetics:	15 37.85 cM
MW:	38.4 kDa
Gene Summary:	<p>Transcriptional activator. Binds the cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), a sequence present in many viral and cellular promoters. Binds to asymmetric CRE's as a heterodimer and to palindromic CRE's as a homodimer. Cooperates with FOXO1 in osteoblasts to regulate glucose homeostasis through suppression of beta-cell production and decrease in insulin production. Regulates the induction of DDIT3/CHOP and asparagine synthetase (ASNS) in response to ER stress. In concert with DDIT3/CHOP, activates the transcription of TRIB3 and promotes ER stress-induced neuronal apoptosis by regulating the transcriptional induction of BBC3/PUMA. Activates transcription of SIRT4. Regulates the circadian expression of the core clock component PER2 and the serotonin transporter SLC6A4. Binds in a circadian time-dependent manner to the cAMP response elements (CRE) in the SLC6A4 and PER2 promoters and periodically activates the transcription of these genes. [UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR229411