

Product datasheet for **RC232739**

ATF2 (NM_001256092) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATF2 (NM_001256092) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATF2
Synonyms:	CRE-BP1; CREB-2; CREB2; HB16; TREB7
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC232739 representing NM_001256092
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTACTGCGCCTGGATGTGCCAGATCAGACCCCAACACCAACAAGATTCTTGAAAACTGTGAAGAAG
 TGGTTTTGTTAATGAGTTGGCGAGTCCATTTGAGAATGAATCAAGAAAGCTTCAGAAGATGACATTAA
 AAAAAATGCCTCTAGATTTATCCCCTCTTGAACACCTATCATAAGAAGCAAAAATTGAGGAGCCTTCTGTT
 GTAGAAACAACACTACCAGGATAGTCTTTACCTCACCCAGAGTCTACTACCAGTGTGAGAAGGAAGTAC
 CATTGGCACAACACTGCACAGCCACATCAGCTATTGTTCTGTCAGCATCATTACAGGTTCCCAATGTGCT
 GCTTACAAGTTCTGACTCAAGTGAATTATTTCAGCAGGCAGTACCTTCACCAACCTCAAGTACTGTAATC
 ACCCAGGCACCATCCTTAACAGGCCAATTGTCCCTGTACCAGGCCCATTTCTCTTCTGTTACATCTTC
 CTAATGGACAAACCATGCCTGTTGCTATTCCTGCATCAATTACAAGTTCTAATGTGCATGTTCCAGCTGC
 AGTCCCCTCGTTCGACCAGTACCATGGTGCCTAGTGTCCAGGAATCCAGGTCTTCTCTCCCCAA
 CCAGTACAGTCAGAAGCAAAAATGAGATTAAGCTGCTTTGACCCAGCAACATCCTCCAGTTACCAATG
 GTGATACTGTCAAAGGTCATGGTAGCGGATTGGTTAGGACTCAGTCAGAGGAATCTCGACCCGAGTCATT
 ACAACAGCCAGCCACATCCACTACAGAACTCCGGCTTCTCCAGCTCACACAACCTCCACAGACCCAAAGT
 ACAAGTGGTCTGTCGGAGAAGAGCAGTAACGAAGATCCTGATGAAAAAGGAGAAAGTTTTTAGAGCGAA
 ATAGAGCAGCAGCTTCAAGATGCCGACAAAAAGGAAAGTCTGGGTTCACTTTAGAGAAGAAAGCTGA
 AGACTTGAGTTTCAATAAGTGCAGTGCAGAGTGAAGTCAACCTGCTGAGAAATGAAGTGGCACAGCTG
 AAACAGCTTCTTCTGGCTCATAAAGATTGCCCTGTAACCGCCATGCAGAAGAAATCTGGCTATCATACTG
 CTGATAAAGATGATAGTTCAGAAGACATTTCAAGTCCGAGTGTCCACATACAGAAGCTATACAGCATAG
 TTCGGTACAGCACATCAATGGAGTCAGTTCAACCTCCAAGGCAGAAGCTGTAGCCACTTCAGTCCCTACC
 CAGATGGCGGACCAGGTACAGAGCCTGCTTTTACAGATCGTTATGGCTCCTTCTCCAGTCACAGC
 CCTCAGGAAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC232739 representing NM_001256092
 Red=Cloning site Green=Tags(s)

MYCAWMWPDQTPTRFLKNCEEVGLFNELASPFENEFKASEDDIKMPLDLSPLATPIIRSKIEEPSV
 VETTHQDSPLPHPESTTSDEKEVPLAQT AQPTSAIVRPASLQVNVLLTSSDSSVIIQQAVPSPTSSTVI
 TQAPSSNRPIVVPVPGPFLLHLPNGQTMPVAIPASITSSNVHVPAAVPLVRPVTMVPSVPIPGSSPQ
 PVQSEAKMRLKAALTQQHPPVTNGDTVKGHGSLVRTQSEESRPQSLQQPATSTTETPASPAHTTPQTQS
 TSGRRRRAANEDPDEKRRKFLERNRAAASRCRQKRKVVWVQSLEKKAEDLSSLNGQLQSEVTLRNEVAQL
 KQLLLAHKDCPVTAMQKKSQYHTADKDDSSEDI SVPSSPHTEAIQHSSVSTSNVSVSTSKAEAVATSVLT
 QMADQSTEPALSQIVMAPSSQSQPSGS

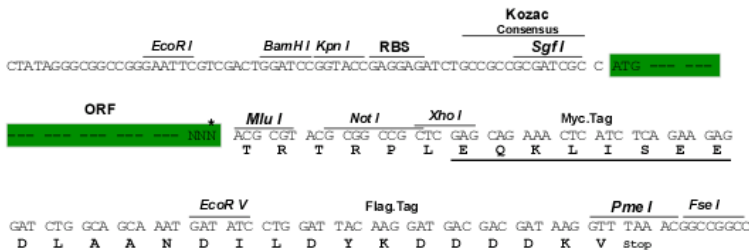
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

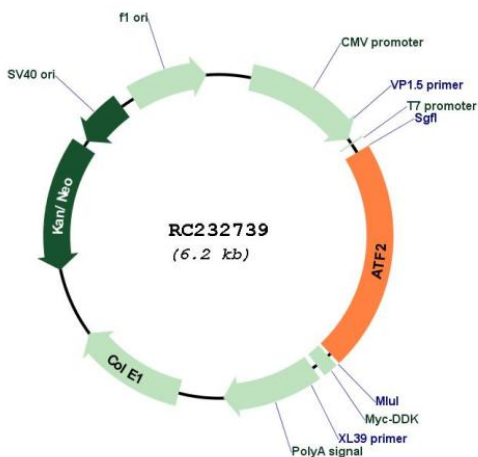
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001256092

ORF Size: 1341 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_001256092.2](#)

RefSeq Size: 4096 bp

RefSeq ORF: 1344 bp

Locus ID: 1386

UniProt ID: [P15336](#)

Cytogenetics: 2q31.1

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: MAPK signaling pathway

MW: 48.5 kDa

Gene Summary: This gene encodes a transcription factor that is a member of the leucine zipper family of DNA binding proteins. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. This protein binds to the cAMP-responsive element (CRE), an octameric palindrome. It forms a homodimer or a heterodimer with c-Jun and stimulates CRE-dependent transcription. This protein is also a histone acetyltransferase (HAT) that specifically acetylates histones H2B and H4 in vitro; thus it may represent a class of sequence-specific factors that activate transcription by direct effects on chromatin components. The encoded protein may also be involved in cell's DNA damage response independent of its role in transcriptional regulation. Several alternatively spliced transcript variants have been found for this gene [provided by RefSeq, Jan 2014]