

Product datasheet for **RG218983**

ATF2 (NM_001880) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATF2 (NM_001880) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ATF2
Synonyms:	CRE-BP1; CREB-2; CREB2; HB16; TREB7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG218983 representing NM_001880
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAATTC AAGTTACATGTGAATCTGCCAGGCAATACAAGACCTGTGGAATATGAGTGATGACAAAC
 CCTTTCTATGACTGCGCCTGGATGTGGCCAGCGTTTTACCAACGAGGATCATTTGGCTGTCATAAACA
 TAAACATGAGATGACACTGAAATTTGGTCCAGCACGTAATGACAGTGTCATTGTGGCTGATCAGACCCCA
 ACACCAACAAGATTCTTGAAAACTGTGAAGAAGTGGGTTTGTAAATGAGTTGGCGAGTCCATTTGAGA
 ATGAATTCAGAAAGCTTCAGAAGATGACATTAATAAATGCCTCTAGATTTATCCCTCTTGCAACACC
 TATCATAAGAAGCAAAATGAGGAGCCTTCTGTTGTAGAAACAACACCAGGATAGTCTTTACCTCAC
 CCAGAGTCTACTACCAGTGATGAGAAGGAAGTACCATTGGCACAACTGCACAGCCACATCAGCTATTG
 TTCGTCAGCATCATTACAGTTCCAATGTGCTGCTTACAAGTCTGACTCAAGTGAATTATTCAGCA
 GGCAGTACCTTACCAACCTCAAGTACTGTAATCACCCAGGCACCATCCTAACAGGCCAATTGTCCT
 GTACCAGGCCATTTCTCTTCTGTTACATCTTCTAATGGACAAACCATGCCTGTTGCTATTCTCGCAT
 CAATTACAAGTTCTAATGTGCATGTTCCAGCTGCAGTCCCACTCGTTCGACCAGTACCATTGGTGCCTAG
 TGTTCAGGAATCCCAGGTCCTTCTCTCCCAACAGTACAGTCAGAAGCAAAAATGAGATTAAGAGCT
 GCTTTGACCCAGCAACATCCTCCAGTTACCAATGGTGATACTGTCAAAGGTCATGGTAGCGGATTGGTTA
 GGACTCAGTCAGAGGAATCTCGACCGCAGTCATTACAACAGCCAGCCACATCCACTACAGAACTCCGGC
 TTCTCCAGCTCACAACTCCACAGACCCAAAGTACAAGTGGTCGTCGGAGAAGAGCAGCTAACGAAGAT
 CCTGATGAAAAAGGAGAAAGTTTTAGAGCGAAATAGAGCAGCAGCTTCAAGATGCCGACAAAAAGGA
 AAGTCTGGGTTCAAGTCTTTAGAGAAGAAAGCTGAAGACTTGAGTTCATTAATGGTCAGCTGCAGAGTGA
 AGTCACCCCTGCTGAGAAATGAAGTGGCACAGCTGAAACAGCTTCTTCTGGCTCATAAAGATTGCCCTGTA
 ACCGCCATGCAGAAGAAATCTGGCTATCATACTGCTGATAAAGATGATAGTTCAGAAGACATTTCAAGTGC
 CGAGTAGTCCACATACAGAAGCTATACAGCATAGTTCGGTCAGCACATCCAATGGAGTCAAGTCAACCTC
 CAAGGCAGAAGCTGTAGCCACTTCAGTCTCACCCAGATGGCGGACCAGAGTACAGAGCCTGCTCTTTCA
 CAGATCGTTATGGCTCCTTCTCCAGTCACAGCCCTCAGGAAGT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG218983 representing NM_001880
 Red=Cloning site Green=Tags(s)

MKFKLVNSARQYKDLWNMSDDKPFLCTAPGCGQRFTNEDHLAVHKKHEMTLKFGPARNDSVIVADQTP
 TPTRFLKNCEEVGLFNELASPFENEFFKASEDDIKKMPLDLSPLATPIIRSKIEEPSVETTHQDSPLPH
 PESTTSDEKEVPLAQTAPQPTSAIVRPASLQVNVLLTSSDSSVVIQQAVPSPTSSTVITQAPSSNRPIVP
 VPGPFPLLLHLPNGQTMPVAIPASITSSNVHVPAAVPLVRPVTMVPSVPGIPGPSSPQPVSQAEMRLKA
 ALTQQHPPVTNGDVTYKGGHGLVTRTQSEESRPQSLQQPATSTTETPASPHTTPQTQSTSGRRRRAANED
 PDEKRRKFLERNRAAASRCRQKRKVVWVQSLKKAEDLSSLNGQLQSEVTLRNEVAQLKQLLLAHKDCPV
 TAMQKKSQYHTADKDDSSEDIQSSPHTQAIQSSVSTSNVSSSTKAEAVATSVLTQMAQDSTEPALS
 QIVMAPSSQSQPSGS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001880

ORF Size: 1515 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_001880.4](#)

RefSeq Size: 2117 bp

RefSeq ORF: 1518 bp

Locus ID: 1386

UniProt ID: [P15336](#)

Cytogenetics: 2q31.1

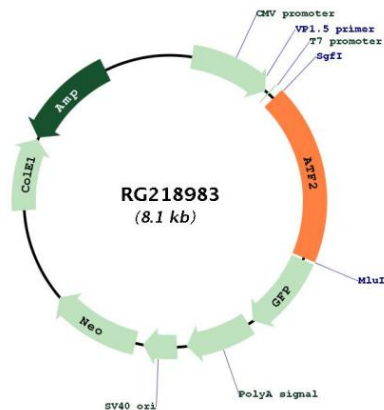
Domains: BRLZ, zf-C2H2

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: MAPK signaling pathway

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]

Product images:



Circular map for RG218983