

Product datasheet for **RC202333**

ATF 4 (ATF4) (NM_182810) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATF 4 (ATF4) (NM_182810) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATF 4
Synonyms:	CREB-2; CREB2; TAXREB67; TXREB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202333 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGACCGAAATGAGCTTCCTGAGCAGCGAGGTGTTGGTGGGGACTTGATGTCCCCCTTCGACCCGTCCG
GTTTGGGGGCTGAAGAAAGCCTAGGTCTCTTAGATGATTACCTGGAGGTGGCCAAGCACTCAAACCTCA
TGGGTTCTCCAGCGACAAGGCTAAGGCGGGCTCCTCCGAATGGCTGGCTGTGGATGGGTTGGTCAGTCCC
TCCAACAACAGCAAGGAGGATGCCTTCTCCGGGACAGATTGGATGTTGGAGAAAAATGGATTTGAAGGAGT
TCGACTTGGATGCCCTGTTGGGTATAGATGACCTGGAAACCATGCCAGATGACCTTCTGACCACGTTGGA
TGACACTTGTGATCTCTTTGCCCCCTAGTCCAGGAGACTAATAAGCAGCCCCCCAGACGGTGAACCCA
ATTGGCCATCTCCAGAAAGTTTAAACAAAACCCGACCAGGTTGCCCCCTTACCTTCTTACAACCTCTTC
CCCTTTCCCAGGGGCTCCTGTCTCCACTCCAGATCATTCTTTAGTTTAGAGCTGGGCAGTGAAGTGA
TACTACTGAAGGAGATAGGAAGCCAGACTACACTGCTTACGTTGCCATGATCCCTCAGTGCAATAAAGGAG
GAAGACACCCCTTCAGATAATGATAGTGGCATCTGTATGAGCCCAGAGTCTATCTGGGGTCTCCTCAGC
ACAGCCCTCTACCAGGGGCTCTCCAAATAGGAGCCTCCCATCTCCAGGTGTTCTCTGTGGGTCTGCCCG
TCCCAAACCTTACGATCTCTGGAGAGAAGATGGTAGCAGCAAAAGTAAAGGGTGAGAACTGGATAAG
AAGCTGAAAAAATGGAGCAAAACAAGACAGCAGCCACTAGGTACCGCCAGAAGAAGAGGGCGGAGCAGG
AGGCTCTTACTGGTGAGTGCAAAGAGCTGGAAAAGAAGAACGAGGCTCTAAAAGAGAGGGCGGATTCCTT
GGCCAAGGAGATCCAGTACCTGAAAGATTTGATAGAAGAGGTCCGCAAGGCAAGGGGAAGAAAAGGGTC
CCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202333 protein sequence
Red=Cloning site Green=Tags(s)

MTEMSFLSSEVLVGDLMSPFDPSGLGAEESLGLLDDYLEVAKHFKPHGFSDDKAKAGSSEWLAVDGLVSP
 SNNSKEDAFSGTDWMLEKMDLKEFDLDALLGIDDLETMPDDLTTLDLDTCDLFAPLVQETNKQPPQTVNP
 IGHLPELTKPDQVAPFTFLQLPLSPGVLSSPTDHSFSLELGSEVDITEGDRKPDYTAYVAMIPQCIE
 EDTPSDNDSGICMSPESYLGSPQHSPSTRGSPNRSLSPGVLCSARPKPYDPPGKEMVAKVKGEKLDK
 KLLKMEQNKTAATRYRQKKRAEQEALTGECKELEKKNEALKERADSLAKEIQYLKDLIEEVRKARGKKRV
 P

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6539_d07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_182810

ORF Size: 1053 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_182810.2](#)

RefSeq Size: 1439 bp

RefSeq ORF: 1056 bp

Locus ID: 468

UniProt ID: [P18848](#)

Cytogenetics: 22q13.1

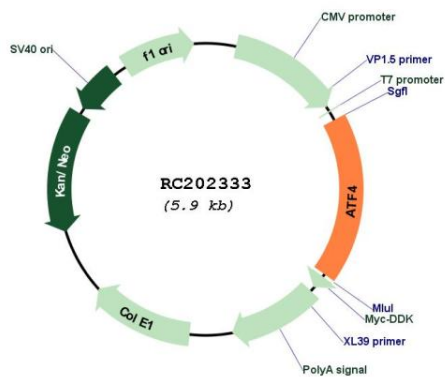
Protein Families: Transcription Factors

Protein Pathways: GnRH signaling pathway, Long-term potentiation, MAPK signaling pathway, Neurotrophin signaling pathway, Prostate cancer

MW: 38.6 kDa

Gene Summary: This gene encodes a transcription factor that was originally identified as a widely expressed mammalian DNA binding protein that could bind a tax-responsive enhancer element in the LTR of HTLV-1. The encoded protein was also isolated and characterized as the cAMP-response element binding protein 2 (CREB-2). The protein encoded by this gene belongs to a family of DNA-binding proteins that includes the AP-1 family of transcription factors, cAMP-response element binding proteins (CREBs) and CREB-like proteins. These transcription factors share a leucine zipper region that is involved in protein-protein interactions, located C-terminal to a stretch of basic amino acids that functions as a DNA binding domain. Two alternative transcripts encoding the same protein have been described. Two pseudogenes are located on the X chromosome at q28 in a region containing a large inverted duplication. [provided by RefSeq, Sep 2011]

Product images:



Circular map for RC202333