

Product datasheet for **RC222709**

ATF 4 (ATF4) (NM_001675) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATF 4 (ATF4) (NM_001675) 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:	>RC222709 representing NM_001675 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGAATTCTGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACCGAAATGAGCTTCTCTGAGCAGCGAGGTGTTGGTGGGGGACTTGATGTCCCCCTTCGACCACTCGG
 GTTTGGGGGCTGAAGAAAGCCTAGGTCTCTTAGATGATTACCTGGAGGTGGCCAAGCACTTCAAACCTCA
 TGGGTTCTCCAGCGACAAGGCTAAGGCGGGCTCCTCCGAATGGCTGGCTGTGGATGGGTTGGTCAGTCCC
 TCCAACAACAGCAAGGAGGATGCCTTCTCCGGGACAGATTGGATGTTGGAGAAAATGGATTTGAAGGAGT
 TCGACTTGGATGCCCTGTTGGGTATAGATGACCTGGAAACCATGCCAGATGACCTTCTGACCACGTTGGA
 TGACACTTGTGATCTCTTTGCCCCCTAGTCCAGGAGACTAATAAGCAGCCCCCAGACGGTGAACCCA
 ATTGGCCATCTCCAGAAAGTTTAAACAAAACCCGACCAGGTTGCCCCCTTCACCTTCTTACAACCTCTTC
 CCCTTTCCCCAGGGGCTCTGTCTCCACTCCAGATCATTCTTTAGTTTAGAGCTGGGCAGTGAAGTGGA
 TATCACTGAAGGAGATAGGAAGCCAGACTACACTGCTTACGTTGCCATGATCCCTCAGTGCATAAAGGAG
 GAAGACACCCCTTCAGATAATGATAGTGGCATCTGTATGAGCCCAGAGTCTATCTGGGGTCTCCTCAGC
 ACAGCCCCCTACAGGGGCTCTCCAAATAGGAGCCTCCCATCTCCAGGTGTTCTCTGTGGGTCTGCCCG
 TCCCAAACCTTACGATCCTCCTGGAGAGAAGATGGTAGCAGCAAAAGTAAAGGGTGAGAACTGGATAAG
 AAGCTGAAAAAATGGAGCAAAACAAGACAGCAGCCACTAGGTACGCCAGAAGAAGAGGGCGGAGCAGG
 AGGCTCTTACTGGTGAGTGCAAAGAGCTGGAAAAGAAACGAGGCTCTAAAAGAGAGGGCGGATTCCCT
 GGCCAAGGAGATCCAGTACCTGAAAGATTTGATAGAAGAGGTCCGCAAGGCAAGGGGAAGAAAAGGGTC
 CCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC222709 representing NM_001675
 Red=Cloning site Green=Tags(s)

MTEMSFLSSEVLVGDLMSFPDQSGLGAEESLGLDDYLEVAKHFKPHGFSSDKAKAGSSEWLAVDGLVSP
 SNNKEDAFSGTDWMLEKMDLKEFDLDALLGIDDLETMPDDLTTLDLDTCDLFAPLVQETNKQPPQTVNP
 IGHLPESLTKPDQVAPFTFLQLPLSPGVLSSPDHFSLELGSEVDITEGDRKPDYTAYVAMIPQCIKE
 EDTPSDNDSGICMSPESYLGSPQHSPSTRGSPNRSPLSPGVLCSARPKPYDPPGEKMVAACKVGEKLDK
 KLKKMEQNKTAATRYRQKKRAEQEALTGECKELEKKNEALKERADSLAKEIQYLKDLIEEVRKARGKKRV
 P

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3920_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001675

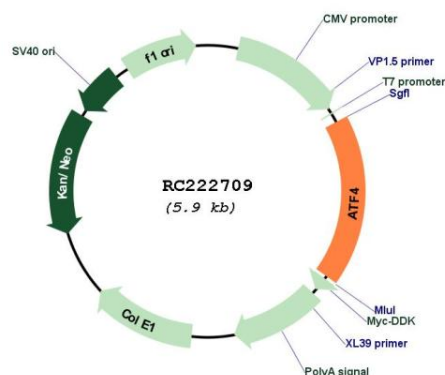
ORF Size: 1053 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

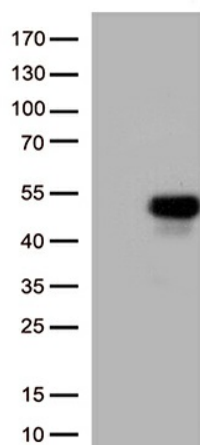
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001675.4
RefSeq Size:	2022 bp
RefSeq ORF:	1056 bp
Locus ID:	468
UniProt ID:	P18848
Cytogenetics:	22q13.1
Domains:	BRLZ
Protein Families:	Transcription Factors
Protein Pathways:	GnRH signaling pathway, Long-term potentiation, MAPK signaling pathway, Neurotrophin signaling pathway, Prostate cancer
MW:	38.4 kDa
Gene Summary:	<p>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]</p>

Product images:



Circular map for RC222709



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ATF4 (Cat# RC222709, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ATF4 antibody (Cat# [TA812805])(1:500)