

Product datasheet for **RG222709**

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:	TurboGFP
Symbol:	ATF 4
Synonyms:	CREB-2; CREB2; TAXREB67; TXREB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222709 representing NM_001675 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACCGAAATGAGCTTCCTGAGCAGCGAGGTGTTGGTGGGGACTTGATGTCCCCCTTCGACCAGTCCG
GTTTGGGGGCTGAAGAAAGCCTAGGTCTCTTAGATGATTACCTGGAGGTGGCCAAGCACTTCAAACCTCA
TGGGTTCTCCAGCGACAAGGCTAAGGCGGGCTCCTCCGAATGGCTGGCTGGATGGGTTGGTCAGTCCC
TCCAACAACAGCAAGGAGGATGCCTTCTCCGGGACAGATTGGATGTTGGAGAAAAATGGATTTGAAGGAGT
TCGACTTGGATGCCCTGTTGGGTATAGATGACCTGGAAACCATGCCAGATGACCTTCTGACCACGTTGGA
TGACACTTGTGATCTCTTTGCCCCCTAGTCCAGGAGACTAATAAGCAGCCCCCCAGACGGTGAACCCA
ATTGGCCATCTCCAGAAAGTTTAAACAAAACCCGACCAGGTTGCCCCCTTACCTTCTTACAACCTCTTC
CCCTTTCCCAGGGGCTCCTGTCTCCACTCCAGATCATTCTTTAGTTTAGAGCTGGGCAGTGAAGTGA
TACTACTGAAGGAGATAGGAAGCCAGACTACACTGCTTACGTTGCCATGATCCCTCAGTGCAATAAAGGAG
GAAGACACCCCTTCAGATAATGATAGTGGCATCTGTATGAGCCCAGAGTCTATCTGGGGTCTCCTCAGC
ACAGCCCTCTACCAGGGGCTCTCCAAATAGGAGCCTCCCATCTCCAGGTGTTCTCTGTGGGTCTGCCCG
TCCCAAACCTTACGATCCTCCTGGAGAGAAGATGGTAGCAGCAAAAGTAAAGGGTGAGAACTGGATAAG
AAGCTGAAAAAATGGAGCAAAACAAGACAGCAGCCACTAGGTACCGCCAGAAGAAGAGGGCGGAGCAGG
AGGCTCTTACTGGTGAAGTCAAAGAGCTGGAAAAGAAGAACGAGGCTCTAAAAGAGAGGGCGGATTCCTT
GGCCAAGGAGATCCAGTACCTGAAAGATTTGATAGAAGAGGTCCGCAAGGCAAGGGGAAGAAAAGGGTC
CCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG222709 representing NM_001675
 Red=Cloning site Green=Tags(s)

MTEMSFLSSEVLVGDLMSPFDQSGLGAEESLGLLDDYLEVAKHFKPHGFSDDKAKAGSSEWLAVDGLVSP
 SNNKEDAFSGTDWMLEKMDLKEFDLDALLGIDDLETMPDDLTTLDLDTCDLFAPLVQETNKQPPQTVNP
 IGHLPESLTKPDQVAPFTFLQPLPLSPGVLSSPTDHSFSLELGSEVDITEGDRKPDYTAIVAMIPQCIKE
 EDTPSDNDSGICMSPESYLGSPQHSPSTRGSPNRSLSPGVLCSARPKPYDPPGKEMVAAKVKGEKLDK
 KLLKMEQNKTAATRYRQKKRAEQEALTGECKELEKKNEALKERADSLAKEIQYLKDLIEEVRKARGKKRV
 P

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001675

ORF Size: 1053 bp

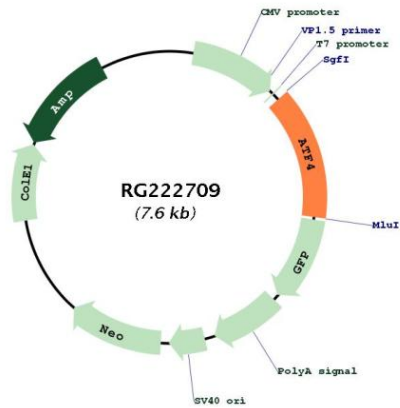
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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.
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
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 RG222709