

## Product datasheet for **SC119103**

### ATF 4 (ATF4) (NM\_001675) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ATF 4 (ATF4) (NM_001675) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATF 4
Synonyms:	CREB-2; CREB2; TAXREB67; TXREB
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_001675 edited CTTCTCACGGCATTTCAGCAGCAGCGTTGCTGTAACCGACAAGACACCTTCGAATTAAGC ACATTCCCTCGATTCCAGCAAAGCACCGCAACATGACCGAAATGAGCTTCCTGAGCAGCGA GGTGTGGTGGGGGACTTGATGTCCCCCTTCGACCCGTCGGGTTTGGGGGCTGAAGAAAG CCTAGGCTCTTTAGATGATTACCTGGAGGTGGCCAAGCACTTCAAACCTCATGGTTTCTC CAGCGACAAGGCTAAGGCGGGCTCCTCCGAATGGCTGGCTGTGGATGGGTTGGTCAGTCC CTCCAACAACAGCAAGGAGGATGCCTTCTCCGGGACAGATTGGATGTTGGAGAAAATGGA TTTGAAGGAGTTCGACTTGGATGCCCTGTTGGGTATAGATGACCTGGAAACCATGCCAGA TGACCTTCTGACCAGTTGGATGACACTTGTGATCTTTGCCCCCTAGTCCAGGAGAC TAATAAGCAGCCCCCAGACGGTGAACCAATTGGCCATCTCCAGAAAAGTTAAACAAA ACCCGACCAGGTTGCCCCCTTACCTTCTTACAACCTTCTCCCTTTCCCAGGGGTCCT GTCTCCACTCCAGATCATTCTTTAGTTTAGAGCTGGGCAAGTGAAGTGGATATCACTGA AGGAGATAGGAAGCCAGACTACACTGCTTACGTTGCCATGATCCCTCAGTGCATAAAGGA GGAAGACACCCCTTCAGATAATGATAGTGGCATCTGTATGAGCCCAGAGTCCATCTGGG GTCTCCTCAGCACAGCCCTCTACCAGGGGCTCTCCAAAAGGAGCCTCCCATCTCCAGG TGTTCTCTGTGGGTCTGCCCGTCCCAAACCTTACGATCCTCCTGGAGAGAAGATGGTAGC AGCAAAAGTAAAGGGTGAGAACTGGATAAGAAGCTGAAAAAATGGAGCAAAACAAGAC AGCAGCCACTAGGTACCAGCAGAAAGAGGGCGGAGCAGGAGGCTTTACTGGTGAGTG CAAAGAGCTGAAAAGAAGAACGAGGCTCTAAAAGAGAGGGCGGATTCCCTGGCCAAGGA GATCCAGTACCTGAAAGATTTGATAGAAGAGGTCGCAAGGCAAGGGGAAGAAAAGGGT CCCCTAGTTGAGGATAGTCAGGAGCGTCAATGTGCTTGTACATAGAGTGCTGTAGCTGTG TGTTCCAATAATTATTTGTAGGGAAAAAAAAAAAAAAAAAAAA
Restriction Sites:	NotI-NotI
ACCN:	NM_001675
Insert Size:	1200 bp



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**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](mailto: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:** A TrueClone.

**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\\_001675.2](#), [NP\\_001666.2](#)

**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:**

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]

Transcript Variant: This variant (1) represents the longer transcript. The protein translation of this variant is regulated by an internal ribosome entry site (PMID: 23665047). Both variants 1 and 2 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.