

Product datasheet for **SC127457**

ATF 4 (ATF4) (NM_182810) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATF 4 (ATF4) (NM_182810) 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 ORF within SC127457 sequence for NM_182810 edited (data generated by NextGen Sequencing)

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ATGACCGAAATGAGCTTCTGAGCAGCGAGGTGTTGGTGGGGACTTGATGTCCCCCTTC
GACCCGTCGGGTTTGGGGCTGAAGAAAGCCTAGGTCTCTTAGATGATTACCTGGAGGTG
GCCAAGCACTTCAAACCTCATGGTTTCTCCAGCGACAAGGCTAAGCGGGCTCCTCCGAA
TGGCTGGCTGTGGATGGTTGGTCAGTCCCTCCAACAACAGCAAGGAGGATGCCTTCTCC
GGGACAGATTGGATGTTGGAGAAAATGGATTTGAAGGAGTTCGACTTGGATGCCCTGTTG
GGTATAGATGACCTGGAACCATGCCAGATGACCTTCTGACCACGTTGGATGACACTTGT
GATCTCTTTGCCCCCTAGTCCAGGAGACTAATAAGCAGCCCCCAGACGGTGAACCCA
ATTGGCCATCTCCAGAAAGTTTAAACAAAACCCGACCAGGTTGCCCCCTTCACCTTCTTA
CAACCTCTTCCCCTTTCCCAGGGTCTGTCTCCACTCCAGATCATTCTTTAGTTTA
GAGCTGGGCAGTGAAGTGGATATCACTGAAGGAGATAGGAAGCCAGACTACACTGCTTAC
GTTGCCATGATCCCTCAGTGCATAAAGGAGGAAGACACCCCTTCAGATAATGATAGTGGC
ATCTGTATGAGCCAGAGTCTATCTGGGGTCTCCTCAGCACAGCCCCTTACCAGGGGC
TCTCCAAATAGGAGCCTCCCATCTCCAGGTGTTCTCTGTGGGTCTGCCCGTCCCAAACCT
TACGATCCTCCTGGAGAGAAGATGGTAGCAGCAAAAGTAAAGGGTGAGAACTGGATAAG
AAGCTGAAAAAATGGAGCAAAACAAGACAGCAGCCACTAGGTACCGCCAGAAGAAGAGG
GCGGAGCAGGAGGCTCTTACTGGTGAGTGCAAAGAGCTGGAAAAGAAGAACGAGGCTCTA
AAAGAGAGGGCGGATTCCCTGGCCAAGGAGATCCAGTACCTGAAAGATTTGATAGAAGAG
GTCCGCAAGGCAAGGGGAAGAAAAGGGTCCCCTAG

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Clone variation with respect to NM_182810.1
65 a=>c



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_182810 unedited
 GTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCCGGTGGAGAATCCCC
 TGGTCTCCGTGAGCGTCCATTTTGTGGAACCTGAGTTGCAAGCAGGGAGGGGCAAATACA
 ACTGCCCTGTTCCCGATTCTCTAGATGGCCGATCTAGAGAAGTCCCGCCTCATAAGTGG
 AGGATGAAATTCTCAGAACAGCTAACCTCTAATGGGAGTTGGCTTCTGATTCTCATTGAG
 GCTTCTCAGGCGATTCCAGCAGCAGCGTTGCTGTAACCGACAAAGACACCTTCGAATTAAG
 CACATTCCTCGATTCCAGCAAAGCACCGCAACATGACCGAAATGAGCTTCCTGAGCAGCG
 AGGTGTTGGNTGGGGACCTTGATGTCCCCTTCGACCCGTCGGGTTTGGGGGCTGAAGA
 AAGCCTAGGTCTCTTAGATGATTACCTGGAGGTGGCCAAGCACTTCAAACCTCATGGGTT
 CTCCAGCGACAAGGCTAAGGCGGGCTCCTCCGAATGGCTGGCTGTGGATGGGTTGGGTCA
 GTCCCTCCAACAACAGCAAGGAGGATGCCTTCTCCGGGACAATTGGNATGTTGGAGAAAA
 TGGATTGAAAGAGTTCGACTTGGATGCCCTGTTGGGGTATAGATGACCTGGAAACCATGC
 CAGATGACCTTCTGACCAGTTGGATGACACTTGTGATCTTTTGCCCCCTAGTCCANG
 AGACTNAATAGCAGCCCCCAGACGGTGAACCCANTGGCCATCTCCAGAAAGTTTACC
 ANACCCGACCAGTTGCCCCCTTACCTTCTACACCTTTCCTTCCCAAGGGGGCCTG
 TCCTCCTCCAGACATNCCCTTANTTAAACCGGCCGGGGAGGGGTATCCTGGAGAACAAG
 GA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_182810 unedited
 NNNNNNNNNNNNNNTTTAACTTTGAACCGCGNCCGCATNCTANGATCGAGTTTTTTT
 TTTTTTTTTTACTTTCCCTACAAAAATTTATTGGGAACACACAGCTACAGCACTCTAT
 GTACAAGCACATTGACGCTCCTGACTATCCTCACTAGGGGACCCTTTTCTTCCCCTTG
 CCTTGGCGACCTTCTCTCAAATCTTTCAGGTAAGTGGATCTCCTTGCCAGGGAATCCG
 CCTCTCTTTTAGAGCCTCGTTCTTTTCCAGCTCTTTCAGCTCACCAGTAAGAGCCT
 CCTGCTCCGCCCTTCTTCTGGCGGTACCTAGTGGCTGCTGTCTGTTTTGCTCCATTT
 TTTTTCAGTCTTATCCAGTTTCTCACCCTTACTTTTGTGCTACCATCTTCTCTCCAG
 GAGGATCGTAAGGTTTGGGACGGGCAGACCCACAGAGAACACCTGGAGATGGGAGGCTCC
 TATTTGGAGAGCCCTGNTANAGGGGCTGTGCTGAGGAGACCCANAAAGACTCTGGGCT
 CATAAGATGCCCTATCATTATCTGAAGGGGTGCTTCTCCTTTATGCACTGAGGGAAC
 ATGGCAACGTAAGCANTGTANTCCTGCCTTCTATCTTCTTAAATGATATCCACTTAACT
 TGCCANCTTTAACTAAAGGAATGATCTTGAGGGGAAGACAGGACCCCGGGGAAAAGGG
 AAAAGTTTTGAAAAATGGGAAGGGGGCACCTGGTCGGTTTTTGGAAAACTTTTGGGAAAA
 GCCAATGGGGTTACCGCTGGGGGGCCTTTTTTAACTCCGGGACTTAGGGGGCAAAAA
 ACACCAGTGTCCCCCACGTGGCAAAAGCAATTGGCTGGGGTCCCGGCATTTTACCCAG
 GGGGTTCCAAGGAAAACCTTAAACCTTTTCCAAACCAATTTGGCCGAAAAGCTTCT
 CA

Restriction Sites:

NotI-NotI

ACCN:

NM_182810

Insert Size:

1410 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_182810.1](#), [NP_877962.1](#)

RefSeq Size: 1420 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

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 (2) lacks an internal segment in the 5' UTR, compared to variant 1. The protein translation of this variant is regulated by two upstream open reading frames (PMID: 15277680). Both variants 1 and 2 encode the same protein.