

Product datasheet for **RC237152**

ATF5 (NM_001290746) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATF5 (NM_001290746) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ATF5
Synonyms: ATFX; HMFN0395
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC237152 representing NM_001290746
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTACTCTGGCGACCCTGGGGCTGGAGCTGGACAGGGCCCTGCTCCCAGCTAGTGGGCTGGGATGCC
TCGTAGACTATGGGAACTCCCCCGGCCCTGCCCCCTGGCTCCCTATGAGGTCCTTGGGGAGCCCT
GGAGGGCGGGCTTCCAGTGGGGGAGAGCCCTGGCAGGTGATGGCTTCTCTGACTGGATGACTGAGCGA
GTTGATTTACAGCTCTCTCCCTCTGGAGCCTCCCTTACCCCCGGCACCCCTCCCCAACCTTCCCCAA
CCCCACCTGACCTGGAAGCTATGGCCTCCCTCCTCAAGAAGGAGCTGGAACAGATGGAAGACTTCTTCT
AGATGCCCCGCCCTCCCACCACCTCCCCGCCGCACTACCACCACCACCCTACCACCAGCCCCCTCC
CTCCCCCTGTCCCTCCCCTCCTTTGACCTCCCCAGCCCCCTGTCTTGGATACTCTGGACTTGCTGGCCA
TCTACTGCCGCAACGAGGCCGGCAGGAGGAAGTGGGGATGCCGCTCTGCCCGCCACAGCAGCCCC
TCCTCCTTCTCCACCTCAACCTTCTCGCTGGCCCCCTACCCACATCCTGCCACCACCCGAGGGGACCGC
AAGCAAAGAAGAGAGACCAGAACAAGTCGGCGCTCTGAGGTACCGCCAGCGGAAGCGGGCAGAGGGTG
AGGCCCTGGAGGGCGAGTGCCAGGGCTGGAGGCACGGAATCGCGAGCTGAAGGAACGGGCAGAGTCCGT
GGAGCGGAGATCCAGTACGTCAAGGACCTGCTCATCGAGTTTACAAGGCCGGAGCCAGAGACCCTGT
AGCTGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC237152 representing NM_001290746
 Red=Cloning site Green=Tags(s)

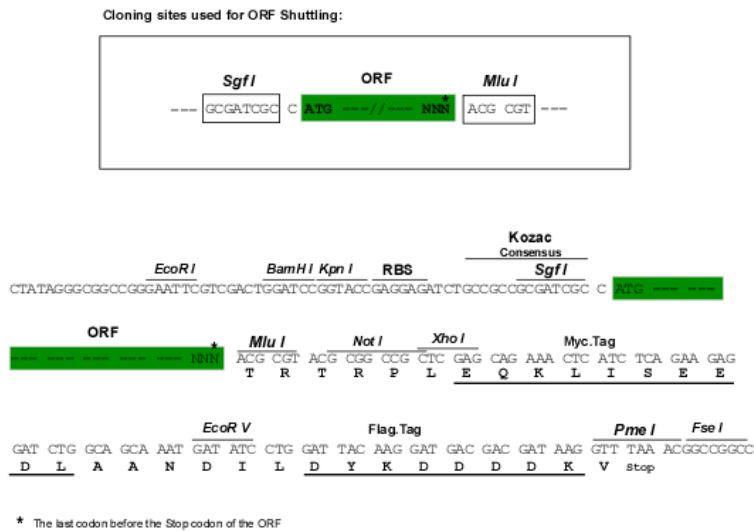
MSLLATLGLELDRALLPASGLGWLVGYGKLPAPAPLAPYEVLGGALEGGLPVGGPELAGDGFSDWMTER
 VDFALLPLEPPLPPGTLPPQSPPTPPDLEAMASLLKKELEQMEDFFLDAPLPPPSPPPLPPPPLPPAPS
 LPLSLPSFDLPQPPVLDLTDLLAIYCRNEAGQEEVGMPPPLPPQPPPPSPQPSRLAPYHPATTRGDR
 KQKKRDQNKSAALRYRQRKRAEGEALGECQGLEARNRELKERAESVEREIQYVKDLLIEVYKARSQTR
 SC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

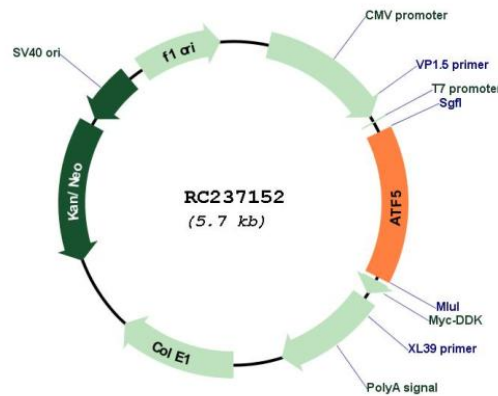
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001290746

ORF Size: 846 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:	<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_001290746.1 , NP_001277675.1
RefSeq Size:	2059 bp
RefSeq ORF:	849 bp
Locus ID:	22809
UniProt ID:	Q9Y2D1
Cytogenetics:	19q13.33
Protein Families:	Transcription Factors
MW:	31.1 kDa

Gene Summary:

Transcription factor that either stimulates or represses gene transcription through binding of different DNA regulatory elements such as cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), ATF5-specific response element (ARE) (consensus: 5'-C[CT]TCT[CT]CCTT[AT]-3') but also the amino acid response element (AARE), present in many viral and cellular promoters. Critically involved, often in a cell type-dependent manner, in cell survival, proliferation, and differentiation (PubMed:10373550, PubMed:15358120, PubMed:21212266, PubMed:20654631). Its transcriptional activity is enhanced by CCND3 and slightly inhibited by CDK4 (PubMed:15358120). Important regulator of the cerebral cortex formation, functions in cerebral cortical neuroprogenitor cells to maintain proliferation and to block differentiation into neurons. Must be down-regulated in order for such cells to exit the cycle and differentiate (By similarity). Participates in the pathways by which SHH promotes cerebellar granule neuron progenitor cells proliferation (By similarity). Critical for survival of mature olfactory sensory neurons (OSN), directs expression of OSN-specific genes (By similarity). May be involved in osteogenic differentiation (PubMed:22442021). Promotes cell proliferation and survival by inducing the expression of EGR1 synergistically with ELK1. Once acetylated by EP300, binds to ARE sequences on target genes promoters, such as BCL2 and EGR1 (PubMed:21791614). Plays an anti-apoptotic role through the transcriptional regulation of BCL2, this function seems to be cell type-dependent (By similarity). Cooperates with NR1H3/CAR in the transcriptional activation of CYP2B6 in liver (PubMed:18332083). In hepatic cells, represses CRE-dependent transcription and inhibits proliferation by blocking at G2/M phase (PubMed:22528486, PubMed:18701499). May act as a negative regulator of IL1B transduction pathway in liver (PubMed:24379400). Upon IL1B stimulus, cooperates with NLK to activate the transactivation activity of C/EBP subfamily members (PubMed:25512613). Besides its function of transcription factor, acts as a cofactor of CEBPB to activate CEBPA and promote adipocyte differentiation (PubMed:24216764). Regulates centrosome dynamics in a cell-cycle- and centriole-age-dependent manner. Forms 9-foci symmetrical ring scaffold around the mother centriole to control centrosome function and the interaction between centrioles and pericentriolar material (PubMed:26213385).[UniProtKB/Swiss-Prot Function]