

## Product datasheet for MC212141

### Atf5 (NM\_030693) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Atf5 (NM_030693) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Atf5
Synonyms:	AFTA; Atf7; Atfx; ODA-10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC212141 representing NM_030693 Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTCACTCCTGGCGACCCTGGGACTGGAGCTGGACAGGGCCCTGCTCCCAGCTAGCGGGCTGGGCTGGC  
TCGTAGACTATGGGAACTCCCCCTGGCCCCTGCCCCCTGGGCCCTATGAGGTCTTGGGGTGCCT  
GGAGGGCGGGCTCCAGGGGGGAGAGCCCTGGCAGGTGACGGCTTCTGATTGGATGACTGAGCGG  
GTGGACTTCACAGCTCTCTTCTCTGGAGGCCCTCTGCCCCAGGCACTCTCCCCCACCTCCCCGG  
CCCCCCTGACCTGGAAGCCATGGCATCCCTACTCAAGAAGGAGCTGGAACAGATGGAAGACTTCTCCT  
TGATGCCCCACTTCTCCCACCGCCCTCCCACCACCACCTCCACCACCAGCAGCAGCACCTCTCTGCC  
CTGCCCTTGCCTTGCACCTTGGACCTCCCTCAGCCTCCTACCCTGGATACCTTGGACCTGCTGGCTG  
TTTACTGCCCGAGTGAGGCCGGCCGGGGATTGAGGCTTGCAACCCTGCCTGTCCCACAGCAGCTCC  
TCCTCTGGCCCCTCTGCCTTACCCGCCGCCAGCCCCCTTATCCTAGTCTGCCAGCACAGGGGGAC  
CGCAAGCAAAGAAGAGAGACCAGAATAAGTCAGCTGCTCTCAGGTACCGCCAGAGGAAGCGGGCAGAGG  
GCGAGGCCCTGGAGGGCGAGTGCCAGGGGCTGGAGGCCGGAACCGGGAGCTGAGGGAGAGGGCTGAGTC  
AGTGGAGCGGGAGATCCAGTACGTGAAGGACCTGCTAATTGAGGTGTATAAGGCCGAAGCCAGAGGACC  
CGCAGCACCTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	Sgfl-MluI
ACCN:	NM_030693
Insert Size:	852 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](#)

**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:** [BC092068](#), [AAH92068](#)

**RefSeq Size:** 1756 bp

**RefSeq ORF:** 852 bp

**Locus ID:** 107503

**UniProt ID:** [O70191](#)

**Cytogenetics:** 7 B3

**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. Its transcriptional activity is enhanced by CCND3 and slightly inhibited by CDK4 (By similarity). 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. Participates in the pathways by which SHH promotes cerebellar granule neuron progenitor cells proliferation (PubMed:22095825). Critical for survival of mature olfactory sensory neurons (OSN), directs expression of OSN-specific genes (PubMed:23090999). May be involved in osteogenic differentiation. 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 (By similarity). Plays an anti-apoptotic role through the transcriptional regulation of BCL2, this function seems to be cell type-dependent (By similarity) (PubMed:12130540). Cooperates with NR1H3/CAR in the transcriptional activation of CYP2B6 in liver. In hepatic cells, represses CRE-dependent transcription and inhibits proliferation by blocking at G2/M phase. May act as a negative regulator of IL1B transduction pathway in liver. Upon IL1B stimulus, cooperates with NLK to activate the transactivation activity of C/EBP subfamily members. Besides its function of transcription factor, acts as a cofactor of CEBPB to activate CEBPA and promote adipocyte differentiation. 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 (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the protein-coding transcript.