

Product datasheet for **MC226592**

Atf2 (NM_001284374) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atf2 (NM_001284374) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Atf2
Synonyms:	Atf-2; CRE-BP; Creb2; D18875; D130078H02Rik; mXBP; Tg(Gzma-Klra1)7Wum
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC226592 representing NM_001284374 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGC**C

ATGGTGCCTAGTGTTCAGGAATCCCAGGCCCTTCCTCTCCTCAACCAGTCCAGTCAGAAGCAAAATGA
GATTAAGCTGCTTTGACCCAGCAACACCCTCCAGTTACCAATGGTGATACTGTAAAAGGCCATGGCAG
TGGATTGGTTAGGACTCAGTCAGAAGAGTCTCGCCACAGTCCTTGACGAGCCAGCCACCTCCACTACA
GAAACTCCGGCTTCTCCAGCTCACAACTCCTCAGACCCAAAATACAAGTGGCCGTCGAAGAAGAGCAG
CTAATGAAGATCCTGATGAGAAAAGGAGGAAGTTTCTAGAACGAAATAGAGCAGCAGCTTCAAGATGCCG
ACAAAAAGGAAAGTGTGGGTTCACTCCTTAGAGAAGAAAGCAGAAGACTTGAGTTCACTAAATGGCCAG
CTGCAGAGCGAAGTCACCCTGCTGAGAAATGAAGTGGCCAGCTGAAACAGCTTCTTCTGGCTCATAAAG
ATTGCCCTGTAAGTCCATGCAGAAGAAGTCTGGCTATCATACTGCTGATAAAGATGACAGTTTCAGAAGA
CCTTTCTGTGCCAAGCAGTCCACATACAGAAGCGATCCAGCACAGCTCTGTGAGCACATCCAATGGAGTC
AGTTCAACATCAAAGCAGAAGCTGTAGCCACTCAGTCCTCACCAGATGGCGGACCAGAGCACGGAGC
CTGCACTTTCACAGATTGTCATGGCTCCTCCCTCCCAGGCACAGCCCTCAGGAAGT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001284374
Insert Size:	759 bp



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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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001284374.1, NP_001271303.1</u>
RefSeq Size:	4025 bp
RefSeq ORF:	759 bp
Locus ID:	11909
Cytogenetics:	2 C3

Gene Summary:

Transcriptional activator which regulates the transcription of various genes, including those involved in anti-apoptosis, cell growth, and DNA damage response. Dependent on its binding partner, binds to CRE (cAMP response element) consensus sequences (5'-TGACGTCA-3') or to AP-1 (activator protein 1) consensus sequences (5'-TGACTCA-3'). In the nucleus, contributes to global transcription and the DNA damage response, in addition to specific transcriptional activities that are related to cell development, proliferation and death. In the cytoplasm, interacts with and perturbs HK1- and VDAC1-containing complexes at the mitochondrial outer membrane, thereby impairing mitochondrial membrane potential, inducing mitochondrial leakage and promoting cell death. The phosphorylated form (mediated by ATM) plays a role in the DNA damage response and is involved in the ionizing radiation (IR)-induced S phase checkpoint control and in the recruitment of the MRN complex into the IR-induced foci (IRIF). Exhibits histone acetyltransferase (HAT) activity which specifically acetylates histones H2B and H4 in vitro. In concert with CUL3 and RBX1, promotes the degradation of KAT5 thereby attenuating its ability to acetylate and activate ATM. Can elicit oncogenic or tumor suppressor activities depending on the tissue or cell type (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (9) differs in the 5' UTR and lacks a 5' exon compared to variant 1. This variant represents translation initiation at a downstream AUG compared to variant 1; the 5'-most initiation codon, as used in variant 1, is associated with a truncated ORF that would render the transcript a candidate for nonsense-mediated decay (NMD). Leaky scanning may allow translation initiation at the downstream AUG. The resulting protein (isoform 6) has a shorter N-terminus compared to isoform 1.