

## Product datasheet for **MC227720**

### Atf2 (NM\_001284376) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Atf2 (NM_001284376) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Atf2
Synonyms:	Atf-2; CRE-BP; Creb2; D18875; D130078H02Rik; mXBP; Tg(Gzma-Klra1)7Wum
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC227720 representing NM_001284376 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCAGTGGCCCTGGGTGTGGCCAGATCAGACTCCAACGCCAACAAGATTCCTAAAAAAGTGAAGAAG  
TGGTTTTGTTCAATGAGTTGGCAAGTCCATTTGAAAATGAATTCAGAAGGCTTCCGAAGATGACATTAA  
AAAAATGCCTCTAGATTTGTCCCTCTTGCAACACCCATCATAAGAAGCAAAATTGAGGAGCCTTCTGTT  
GTAGAAACAACACTACCAGGACAGCCCTTACCTCACCCGAGTCGACTACCAAGTATGAAAAGGAAGTAC  
CATTGGCACAACACTGCACAGCCACATCAGCTATCGTTTCGTCAGCATCATTACAGGTTCCCAATGTGCT  
GCTCACAAGTTCTGACTCAAGTGAATTAATTCAACAAGCAGTACCTTCACCAACCTCAAGTACTGTAATC  
ACCCAGGCACCATCCTCTAACAGGCCAATTGTTCTGTACCAGGCCCATTCCTCTTCTTACATCTTC  
CTAATGGACAACCATGCCCGTTGCTATTCCTGCATCAATTACAAGTTCTAATGTGCATGTTCCAGCTGC  
AGTCCCACTTGCAGTTGTTCCAGGAATCCAGGCCCTTCTCTCCTCAACCAGTCCAGTCAGAAGCAAAA  
ATGAGATTAAGAGCTGCTTTGACCCAGCAACACCCTCCAGTTACCAATGGTGATACTGTAAGGCCATG  
GCAGTGGATTGGTTAGGACTCAGTCAGAAGAGTCTCGCCACAGTCTTGCAGCAGCCACCCACCTCCAC  
TACAGAAACTCCGGCTTCTCCAGCTCACACAACCTCCTCAGACCCAAAATACAAGTGGCCGTCGAAGAAGA  
GCAGCTAATGAAGATCCTGATGAGAAAAGGAGGAAGTTTCTAGAACGAAATAGAGCAGCAGCTTCAAGAT  
GCCGACAAAAAGGAAAGTGTGGTTTCAGTCTTAGAGAAGAAAGCAGAAGACTTGAAGTCACTAAATGG  
CCAGCTGCAGAGCGAAGTCAACCTGCTGAGAAAATGAAGTGGCCAGCTGAAACAGCTTCTTCTGGCTCAT  
AAAGATTGCCCTGTAAGTCCATGCAGAAGAAGTCTGGCTATCATACTGCTGATAAAGATGACAGTTCAG  
AAGACCTTCTGTGCCAAGCAGTCCACATACAGAAGCGATCCAGCACAGCTCTGTCAGCACATCCAATGG  
AGTCAGTTCAACATCAAAAGCAGAAGCTGTAGCCACTTCACTCCTCACCCAGATGGCGGACCAGAGCAGC  
GAGCCTGCACTTTCACAGATTGCATGGCTCCTCCCTCCAGGCACAGCCCTCAGGAAGTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_001284376
<b>Insert Size:</b>	1323 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001284376.1</a></u> , <u><a href="#">NP_001271305.1</a></u>
<b>RefSeq Size:</b>	4182 bp
<b>RefSeq ORF:</b>	1323 bp
<b>Locus ID:</b>	11909
<b>Cytogenetics:</b>	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 (4) lacks an alternate in-frame exon, contains an alternate in-frame exon and uses a downstream start codon compared to variant 1. The resulting protein (isoform 3) is shorter compared to isoform 1. 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.