

## Product datasheet for **MR225769**

### **Atf2 (NM\_009715) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Atf2 (NM_009715) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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)



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**ORF Nucleotide Sequence:**

>MR225769 representing NM\_009715  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCACTGCCCTGGGTGTGCCAGATCAGACTCCAACGCCAACAAAGATTCCTAAAAAAGTGAAGAAG  
 TGGTTTTGTTCAATGAGTTGGCAAGTCCATTTGAAAATGAATTCAGAAGGCTTCCGAAGATGACATTAA  
 AAAAATGCCTCTAGATTTGTCCCCTCTTGAACACCCATCATAAGAAGCAAAAATTGAGGAGCCTTCTGTT  
 GTAGAAACAACACTACCAGGACAGCCCTTACCTACCCCGAGTCGACTACCAGTGATGAAAAGGAAGTAC  
 CATTGGCACAACACTGCACAGCCACATCAGCTATCGTTCGTCCAGCATCATTACAGGTTCCCAATGTGCT  
 GCTCACAAGTTCTGACTCAAGTGAATTATTCAACAAGCAGTACCTTCACCAACCTCAAGTACTGTAATC  
 ACCCAGGCACCATCCTTAACAGGCCAATTGTTCTGTACCAGGCCCATTTCTCTTCTTACATCTTC  
 CTAATGGACAAAACATGCCCGTTGCTATTCCTGCATCAATTACAAGTTCTAATGTGCATGTTCCAGCTGC  
 AGTCCCCTTGTTCGGCCAGTCACCATGGTGCCTAGTGTCCAGGAATCCAGGCCCTTCTCTCTCTCAA  
 CCAGTCCAGTCAGAAGCAAAAATGAGATTAAGCTGCTTTGACCCAGCAACACCCCTCCAGTTACCAATG  
 GTGATACTGTAAGGCCATGGCAGTGGATTGGTTAGGACTCAGTCAGAAGAGTCTCGCCACAGTCCTT  
 GCAGCAGCCAGCCACCTCCACTACAGAACTCCGGCTTCTCCAGCTCACACAACCTCTCAGACCCAAAAT  
 ACAAGTGGCCGTGAAGAAGAGCAGCTAATGAAGATCCTGATGAGAAAAGGAGGAAGTTTCTAGAACGAA  
 ATAGAGCAGCAGCTTCAAGATGCCGACAAAAAGGAAAGTGTGGGTTTCACTTAGAGAAGAAAGCAGA  
 AGACTTGAGTTCACTAAATGGCCAGCTGCAGAGCGAAGTACCCTGCTGAGAAAAGTGAAGTGGCCAGCTG  
 AAACAGCTTCTTCTGGCTCATAAAGATTGCCCTGTAAGTCCATGCAGAAGAAGTCTGGCTATCATACTG  
 CTGATAAAGATGACAGTTCAGAAGACCTTTCTGTGCCAAGCAGTCCACATACAGAAGCGATCCAGCACAG  
 CTCTGTGACACATCCAATGGAGTCAGTTCAACATCAAAAAGCAGAAGCTGTAGCCACTTCAGTCCCTCACC  
 CAGATGGCGGACCAGACGACGGAGCCTGCACTTTCACAGATTGTCATGGCTCCTCCTCCAGGCACAGC  
 CCTCAGGAAGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR225769 representing NM\_009715  
 Red=Cloning site Green=Tags(s)

MHCPWVWPQTPTRFLKNCEEVGLFNELASPFENEFKASEDDIKMPLDLSPLATPIIRSKIEEPSV  
 VETTHQDSPLPHPESTTSDEKEVPLAQAQPTSAIVRPASLQVNVLLTSSDSSVIIQQAVPSPTSSTVI  
 TQAPSSNRPIVPVPGFPFLLHLPNGQTMPVAIPASITSSNVHVPAAVPLVRPVTMVPSVPGIPGPSSPQ  
 PVQSEAKMRLKAALTQHPVPTNGDVKGHGSLVVRTQSEESRPQSLQQPATSTTETPASPAHTTPQTQN  
 TSGRRRRAANEDPDEKRRKFLERNRAAASRCRQKRKVVWVQSLEKKAEDLSSLNGQLQSEVTLRNEVAQL  
 KQLLLAHKDCPVTAMQKKSQYHTADKDDSSDLVSPSSPHTEAIQHSSVSTSNVSVSTSKAEAVATSVLT  
 QMADQSTEPALSQIVMAPPSSQAQPSGS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9036\\_b02.zip](https://cdn.origene.com/chromatograms/mm9036_b02.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_009715

**ORF Size:** 1341 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:**

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\\_009715.3](#), [NP\\_033845.1](#)

**RefSeq Size:** 4197 bp

**RefSeq ORF:** 1344 bp

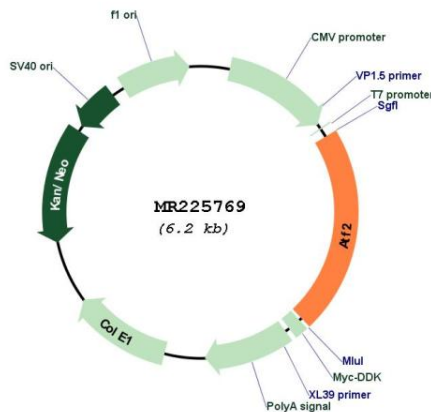
**Locus ID:** 11909

**Cytogenetics:** 2 C3

**MW:** 48.5 kDa

**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]

**Product images:**


Circular map for MR225769