

## Product datasheet for **MR229820**

### **Atf2 (NM\_001284370) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Atf2 (NM\_001284370) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**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  
**ORF Nucleotide Sequence:** >MR229820 representing NM\_001284370  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGAGTGATGACAAACCCTTTCTATGCACTGCCCTGGGTGTGGCCAGCGTTTTACCAACGAGGATCATT  
TGGCTGTCCATAAACATAAACATGAGATGACACTGAAATTTGGTCCAGCACGTAATGACAGTGTCATTGT  
GGCTGATCAGACTCCAACGCCAACAAAGATTCTAAAAAAGTGTGAAGAAGTGGGTTTGTTCATGAGTTG  
GCAAGTCCATTTGAAAAATGAATTAAGAAGGCTTCCGAAGATGACATTAATAAATGCCTCTAGATTTGT  
CCCTCTTGCAACACCCATCATAAGAAGCAAAATGAGGAGCCTTCTGTTGTAGAAAACAACTCACAGGA  
CAGCCCTTTACCTCACCCGAGTCGACTACCAGTGATGAAAAGGAAGTACCATTGGCACAACCTGCACAG  
CCCACATCAGCTATCGTTCGTCCAGCATCATTACAGGTTCCCAATGTGCTGCTCACAAGTTCTGACTCAA  
GTGTAATTATTCAACAAGCAGTACCTTCACCAACCTCAAGTACTGTAATCACCCAGGCACCATCCTCTAA  
CAGGCCAATTGTTCTGTACCAGGCCATTTCTCTTCTTACATCTTCCTAATGGACAAAACCATGCC  
GTTGCTATTCTGCATCAATTACAAGTTCTAATGTGCATGTTCCAGCTGCAGTCCCACCTGTTTCGGCCAG  
TCACCATGGTGCCTAGTGTCCAGGAATCCAGGCCCTTCTCTCCTCAACCAGTCCAGTCAGAAGCAAA  
AATGAGATTAAGAAGTGCCTTTGACCCAGCAACCCCTCCAGTTACCAATGGTGATCTGTAAGAAGCCAT  
GGCAGTGGATTGGTTAGGACTCAGTCAGAAGAGTCTCGCCACAGTCTTGCAGCAGCCAGCCACCTCCA  
CTACAGAACTCCGGCTTCTCCAGCTCACACAACCTCCTCAGACCCAAAATACAAGTGGCCGTCGAAGAAG  
AGCAGCTAATGAAGATCCTGATGAGAAAAGGAGGAAGTTCTAGAACGAAATAGAGCAGCAGCTTCAAGA  
TGCCGACAAAAAGGAAAGTGTGGGTTCACTCTAGAGAAGAAAGCAGAAGACTTGAGTTCACATAAATG  
GCCAGTCGAGGTATGGGCACAAGCAGTTTCTTCTATTTATTAGTTAGCAACATAGGTGTTGCTTGGTT  
TGTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR229820 representing NM\_001284370  
Red=Cloning site Green=Tags(s)

MSDDKPFLLCTAPGCGQRFNTEDHLAVHKHKHEMTLKFGPARNDSSVIVADQTPTRFLKNCEEVGLFNEL  
 ASPFENEFFKASEDDIKKMPDLDSPLATPIIRSKIEEPSVVETTHQDSPLPHPESTTSDEKEVPLAQTAQ  
 PTSAIVRPASLQVPNVLLTSSDSSVIIQQAVPSPTSSTVITQAPSSNRPIVPVPGFPPLLLHLPNGQTMP  
 VAIPASITSSNVHVPAAVPLVRPVTMVPSVPGIPGPSSPQPVQSEAKMRLKAAL TQQHPPVTNGDTVKGH  
 GSGLVRTQSEESRPQSLQQPATSTTETPASPATHTPQTQNTSGRRRRAANEDPDEKRRKFLERNRAASR  
 CRQKRKVVWVQSLEKKAEDLSSLNGQLQVWAQAVCFYLLVSNIGVAWFVGLVWFGLVWFFVCSFARQGFVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

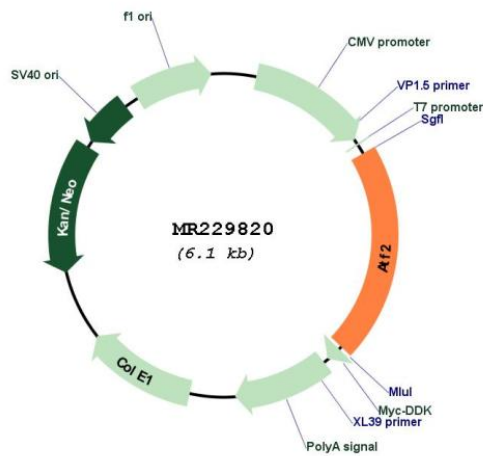
**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001284370

<b>ORF Size:</b>	1260 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_001284370.1</a> , <a href="#">NP_001271299.1</a>
<b>RefSeq Size:</b>	3679 bp
<b>RefSeq ORF:</b>	1263 bp
<b>Locus ID:</b>	11909
<b>Cytogenetics:</b>	2 C3
<b>MW:</b>	46.2 kDa
<b>Gene Summary:</b>	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]