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Product datasheet for MR228803

Atf2 (NM_001284374) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atf2 (NM_001284374) 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:	>MR228803 representing NM_001284374 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGTGCCTAGTGTTCCAGGAATCCCAGGCCCTTCCTCTCCTCAACCAGTCCAGTCAGAAGCAAAAATGA GATTAAAAGCTGCTTTGACCCAGCAACACCCTCCAGTTACCAATGGTGATACTGTAAAAGGCCATGGCAG TGGATTGGTTAGGACTCAGTCAGAAGAGTCTCGCCCACAGTCCTTGCAGCAGCCAGCCACCTCCACTACA GAAACTCCGGCTTCTCCAGCTCACACAACTCCTCAGACCCAAAATACAAGTGGCCGTCGAAGAAGAGCAG CTAATGAAGATCCTGATGAGAAAAGGAGGAAGTTTCTAGAACGAAATAGAGCAGCAGCTTCAAGATGCCG ACAAAAAAGGAAAGTGTGGGTTCAGTCCTTAGAGAAGAAAGCAGAAGACTTGAGTTCACTAAATGGCCAG CTGCAGAGCGAAGTCACCCTGCTGAGAAATGAAGTGGCCCAGCTGAAACAGCTTCTTCTGGCTCATAAAG ATTGCCCTGTAACTGCCATGCAGAAGAAGTCTGGCTATCATACTGCTGATAAAGATGACAGTTCAGAAGA CCTTTCTGTGCCAAGCAGTCCACATACAGAAGCGATCCAGCACAGCTCTGTCAGCACATCCAATGGAGTC AGTTCAACATCAAAAGCAGAAGCTGTAGCCACTTCAGTCCTCACCCAGATGGCGGACCAGAGCACGGAGC CTGCACTTTCACAGATTGTCATGGCTCCTCCCTCCCAGGCACAGCCCTCAGGAAGT ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

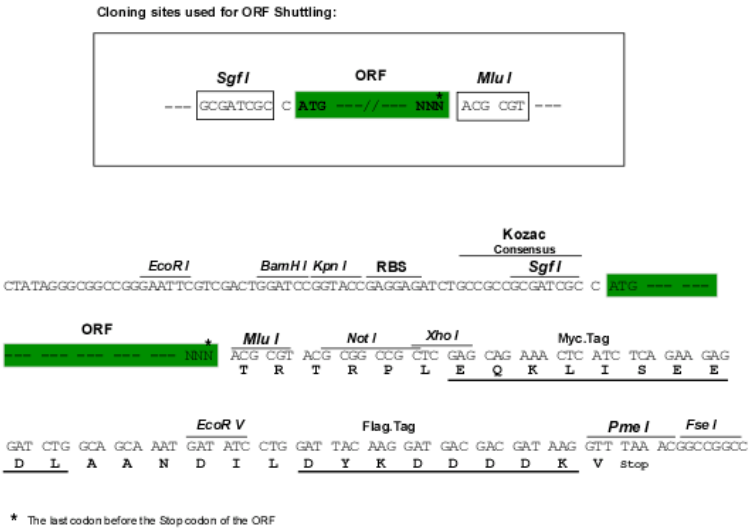
>MR228803 representing NM_001284374
Red=Cloning site Green=Tags(s)

MVPSVPGIPGPSSPQPVQSEAKMRLKAALTQQHPPVTNGDTVKGHGSGLVRTQSEESRPQSLQQPATSTT
ETPASPAHTTPQTQNTSGRRRRAANEDPDEKRRKFLERNRAAASRCRQKRKVWVQSLEKKAEDLSSLNGQ
LQSEVTLLRNEVAQLKQLLLAHKDCPVTAMQKKSGYHTADKDDSSEDLSVPSSPHTEAIQHSSVSTSNGV
SSTSKAEAVATSVLTQMADQSTEPALSQIVMAPPSQAQPSGS

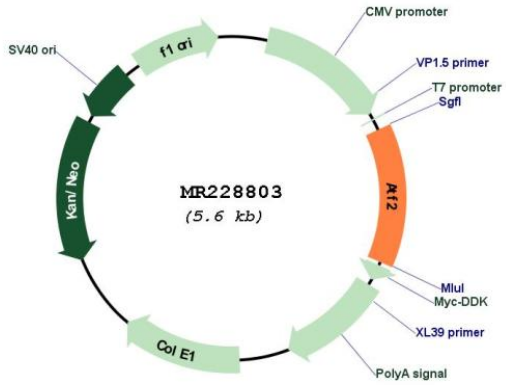
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001284374

ORF Size: 756 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_001284374.1, NP_001271303.1

RefSeq Size: 4025 bp

RefSeq ORF: 759 bp

Locus ID: 11909

Cytogenetics: 2 C3

MW: 27.5 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]