

Product datasheet for RC205923

ATF1 (NM_005171) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATF1 (NM_005171) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATF1
Synonyms:	EWS-ATF1; FUS/ATF-1; TREB36
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205923 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAAGATCCCACAAGAGTACCACGTCAGAGACAGCACCTCAACCTGGTTCAGCAGTTCAGGGAGCTC
ACATTTCTCATATTGCTCAACAGGTATCATCTTTATCAGAAAGTGAGGAGTCCCAGGACTCATCCGACAG
CATAGGCTCCTCACAGAAAGCCACGGGATCCTAGCACGGCGCCCATTTACAGAAAAATTTGAAAGAC
TTATCTTCTGAAGATACACGGGGCAGAAAAGGAGACGGAGAAAATCTGGAGTTTCTGCTGCTGCTACTT
CTATGTCTGTTCCAACCTCCATCTATCAGACTAGCAGCGGACAGTATATTGCCATTGCCCAAATGGAGC
CTTACAGTTGGCAAGTCCAGGCACAGATGGAGTACAGGGACTTCAGACATTAACCATGACAAATTCAGGC
AGTACTCAGCAAGGTACAATCTTCTCAGTATGCACAGACCTCTGATGGACAGCAGATACTTGTGCCCA
GCAATCAGGTGGTCGTACAACTGCATCAGGAGATATGCAAACATATCAGATCCGAACTACACCTTCAGC
TACTTCTCTGCCACAACTGTGGTGATGACATCTCCTGTGACTCTCACCTCTCAGACAACAAAGACAGAT
GACCCCAATTGAAAAGAGAAAATAGGTTAATGAAAAACAGAGAAGCTGCTCGAGAATGTCGCAGAAAAGA
AGAAAGAATATGTGAAATGCCTGGAAAACCGAGTTGCAGTCTGGAAAATCAAAAATAAACTCTAATAGA
AGAGTTAAAAACTTTGAAGGATCTTTATTCCAATAAAAGTGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205923 protein sequence
Red=Cloning site Green=Tags(s)

MEDSHKSTTSETAPQPGSAVQGAHISHIAQQVSSLSESEESQDSSDSIGSSQKAHGILARRPSYRKILKD
 LSSEDRGRKGDGENSGVSAAVTSMVPTPIYQTSSGQYIAIAPNGALQLASPGTDGVQGLQTLTMTNSG
 STQQGTTILQYAQTSDDGQQILVPSNQVVVQTASGDMQTYQIRTPSATSLPQTVVMTSPVLTLSQTTKTD
 DPQLKREIRLMKNREAAARECRRKKKEYVKLENRVAVLENQNKTLIEELKTLKDLYSNKS

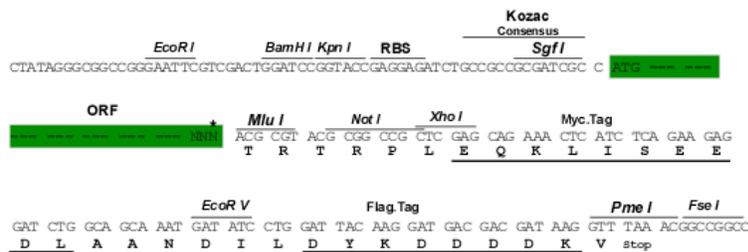
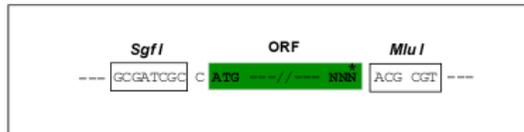
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6034_e03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_005171

ORF Size: 813 bp

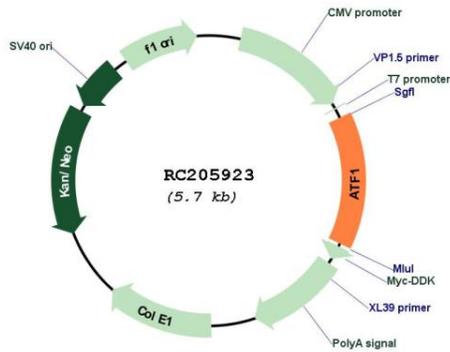
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

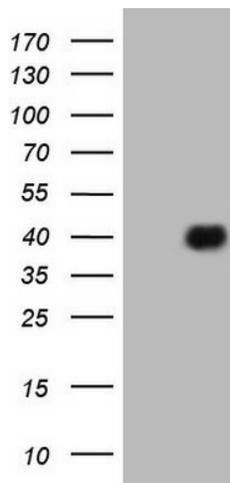
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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:	NM_005171.5
RefSeq Size:	2505 bp
RefSeq ORF:	816 bp
Locus ID:	466
UniProt ID:	P18846
Cytogenetics:	12q13.12
Domains:	pKID, BRLZ
Protein Families:	Druggable Genome, Transcription Factors
MW:	29.2 kDa
Gene Summary:	<p>This gene encodes an activating transcription factor, which belongs to the ATF subfamily and bZIP (basic-region leucine zipper) family. It influences cellular physiologic processes by regulating the expression of downstream target genes, which are related to growth, survival, and other cellular activities. This protein is phosphorylated at serine 63 in its kinase-inducible domain by serine/threonine kinases, cAMP-dependent protein kinase A, calmodulin-dependent protein kinase I/II, mitogen- and stress-activated protein kinase and cyclin-dependent kinase 3 (cdk-3). Its phosphorylation enhances its transactivation and transcriptional activities, and enhances cell transformation. Fusion of this gene and FUS on chromosome 16 or EWSR1 on chromosome 22 induced by translocation generates chimeric proteins in angiomatoid fibrous histiocytoma and clear cell sarcoma. This gene has a pseudogene on chromosome 6. [provided by RefSeq, Aug 2010]</p>

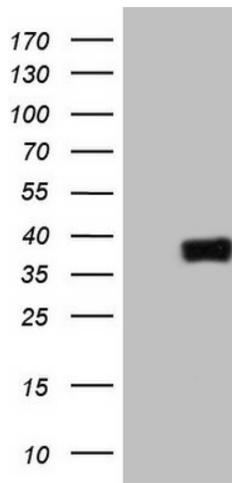
Product images:



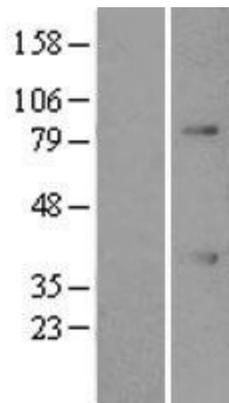
Circular map for RC205923



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ATF1 (Cat# RC205923, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ATF1 (Cat# [TA807630])(1:2000). Positive lysates [LY401582] (100ug) and [LC401582] (20ug) can be purchased separately from OriGene.



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY ATF1 (RC205923, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ATF1 ([TA807704]). Positive lysates [LY401582] (100ug) and [LC401582] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401582]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205923 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).