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Product datasheet for RC214278

ATF6 (NM_007348) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATF6 (NM_007348) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATF6
Synonyms:	ACHM7; ATF6A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC214278 representing NM_007348
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGGAGCCGGCTGGGGTTGCCGGCACCATGGAGTCACCTTTTAGCCCGGGACTCTTTCACAGGCTGG
ATGAAGATTGGGATTCTGCTCTCTTTGCTGAACTCGGTTATTTCACAGACACTGATGAGCTGCAATTGGA
AGCAGCAAATGAGACGTATGAAAACAATTTTGATAATCTTGATTTTGATTTGGATTTGATGCCTTGGGAG
TCAGACATTTGGGACATCAACAACCAAATCTGTACAGTTAAAGATATTAAGGCAGAACCTCAGCCACTTT
CTCCAGCCTCCTCAAGTTATTCAGTCTCGTCTCCTCGGTCAGTGGACTCTTATTCTTCAACTCAGCATGT
TCCTGAGGAGTTGGATTTGTCTTCTAGTTCTCAGATGTCTCCCCTTTCCTTATATGGTGAAAACTCTAAT
AGTCTCTCTTCAGCGGAGCCACTGAAGGAAGATAAGCCTGTCACTGGTCCTAGGAACAAGACTGAAAATG
GACTGACTCCAAAGAAAAAAATTCAGGTGAATTCAAAACCTTCAATTCAGCCCAAGCCTTTATTGCTTCC
AGCAGCACCCAAGACTCAAACAAACTCCAGTGTTCCAGCAAAAACCATCATTATTCAGACAGTACCAACG
CTTATGCCATTGGCAAAGCAGCAACCAATTATCAGTTTACAACCTGCACCCACTAAAGGCCAGACGGTTT
TGCTGTCTCAGCCTACTGTGGTACAACTTCAAGCACCTGGAGTTCTGCCCTCTGCTCAGCCAGTCCTTGC
TGTTGCTGGGGGAGTCACACAGCTCCCTAATCACGTGGTGAATGTGGTACCAGCCCCTTCAGCGAATAGC
CCAGTGAATGGAAAACTTTCCGTGACTAAACCTGTCCTACAAAGTACCATGAGAAATGTCGGTTCAGATA
TTGCTGTGCTAAGGAGACAGCAACGTATGATAAAAAATCGAGAATCCGCTTGTCAGTCTCGCAAGAAGAA
GAAAGAATATATGCTAGGGTTAGAGGCGAGATTAAAGGCTGCCCTCTCAGAAAACGAGCAACTGAAGAAA
GAAAATGGAACACTGAAGCGGCAGCTGGATGAAGTTGTGTCAGAGAACCAGAGGCTTAAAGTCCCTAGTC
CAAAGCGAAGAGTTGTCTGTGTGATGATAGTATTGGCATTTATAATACTGAACTATGGACCTATGAGCAT
GTTGGAACAGGATTCCAGGAGAATGAACCCTAGTGTGAGCCCTGCAAATCAAAGGAGGCACCTTCTAGGA
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TCAGCCCCTAATTAACACAACAGAGTCTCTCAGGTTAAATCATGAACTTCGAGGATGGGTTCATAGACAT
GAAGTAGAAAGGACCAAGTCAAGAAGAATGACAAATAATCAACAGAAAACCCGTATTCTTCAGGGTGCTC
TGGAACAGGGCTCAAATTCTCAGCTGATGGCTGTTCAATACACAGAAACCACTAGTAGTATCAGCAGGAA
CTCAGGGAGTGAGCTACAAGTGTATTATGCTTCACCCAGAAGTTATCAAGACTTTTTTGAAGCCATCCGC
AGAAGGGGAGACACATTTTATGTTGTGTCATTTCGAAGGGATCACCTGCTGTTACCAGCTACCACCCATA
ACAAGACCACAAGACCAAAAATGTCAATTGTGTTACCAGCAATAAACATAAATGAGAATGTGATCAATGG
GCAGGACTACGAAGTGATGATGCAGATTGACTGTCAGGTGATGGACACCAGGATCCTCCATATCAAAAGT
TCGTCAGTTCCTCCTTACCTCCGAGATCAGCAGAGGAATCAAACCAACACCTTCTTTGGCTCCCCTCCCG
CAGCCACAGAGGCAACCCACGTTGTCAGCACCATCCCTGAGTCATTACAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

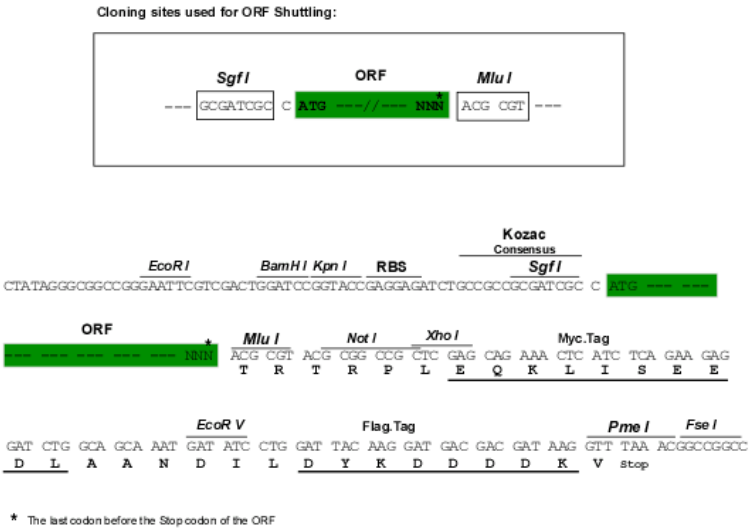
>RC214278 representing NM_007348
Red=Cloning site Green=Tags(s)

MGEPAGVAGTMESPFSPGLFHRLDEDWDSALFAELGYFTDTDELQLEAANETYENNFDNLDFDLDLMPWE
SDIWDINNQICTVKDIKAEPQPLSPASSSYSVSSPRSVDSYSSTQHVPEELDLSSSSQMSPLSLYGENSN
SLSSAEPLKEDKPVTGPRNKTENGLTPKKKIQVNSKPSIQPKPLLLPAAPKTQTNSSVPAKTIIIQTVPT
LMPLAKQQPIISLQPAPTKGQTVLLSQPTVVQLQAPGVLPSAQPVLAVAGGVTQLPNHVVNVVPAPSANS
PVNGKLSVTKPVLQSTMRNVGSDIAVLRRQQRMIKNRESACQSRKKKKEYMLGLEARLKAALSENEQLKK
ENGTLKRQLDEVVSENQRLKVPSPKRRVVCVMIVLAFIILNYGPMSMLEQDSRRMNPSVSPANQRRHLLG
FSAKEAQDTSDGIIQKNSYRYDHSVSNDKALMVLTEEPLLYIPPPPCQPLINTTESLRLNHELRGWVHRH
EVERTKSRRMTNNQQKTRILQGALEQGSNSQLMAVQYTETTSSISRNSGSELQVYYASPRSYQDFFEAIR
RRGDTFYVVSFRRDHLLLPATTHNKTTRPKMSIVLPAININENVINGQDYEVMMQIDCQVMDTRILHIKS
SSVPPYLRDQQRNQTNTFFGSPPAATEATHVVSTIPESLQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



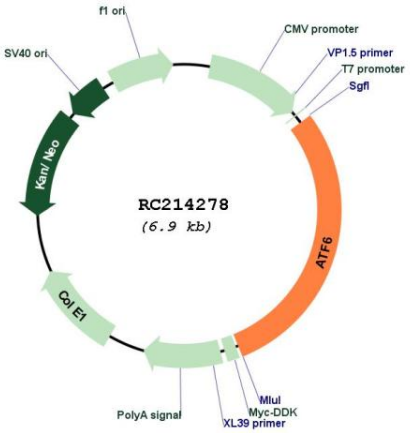
ACCN: NM_007348

ORF Size: 2010 bp

OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_007348.4
RefSeq Size:	2488 bp
RefSeq ORF:	2013 bp
Locus ID:	22926
UniProt ID:	P18850
Cytogenetics:	1q23.3
Domains:	BRLZ
Protein Families:	Transcription Factors
Protein Pathways:	Alzheimer's disease
MW:	74.4 kDa

Gene Summary: This gene encodes a transcription factor that activates target genes for the unfolded protein response (UPR) during endoplasmic reticulum (ER) stress. Although it is a transcription factor, this protein is unusual in that it is synthesized as a transmembrane protein that is embedded in the ER. It functions as an ER stress sensor/transducer, and following ER stress-induced proteolysis, it functions as a nuclear transcription factor via a cis-acting ER stress response element (ERSE) that is present in the promoters of genes encoding ER chaperones. This protein has been identified as a survival factor for quiescent but not proliferative squamous carcinoma cells. There have been conflicting reports about the association of polymorphisms in this gene with diabetes in different populations, but another polymorphism has been associated with increased plasma cholesterol levels. This gene is also thought to be a potential therapeutic target for cystic fibrosis. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RC214278