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Product datasheet for SC116085

ATG7 (NM_006395) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATG7 (NM_006395) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATG7
Synonyms:	APG7-LIKE; APG7L; GSA7
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene sequence for NM_006395 edited
GAATTCGGCACGAGGGCCGGAAGTTGAGCGGCGGCAAGAAATAATGGCGGCAGCTACGGG
GGATCCTGGACTCTCTAAACTGCAGTTTGCCCCTTTTAGTAGTGCCTTGGATGTTGGGTT
TTGGCATGAGTTGACCCAGAAGAAGCTGAACGAGTATCGGCTGGATGAAGCTCCCAAGGA
CATTAAGGGTTATTACTACAATGGTGACTCTGCTGGGCTGCCAGCTCGCTTAACATTGGA
GTTCAGTGCTTTTGACATGAGTGCTCCCACCCCAGCCCGTTGCTGCCCAGCTATTGGAAC
ACTGTATAACACCAACACACTCGAGTCTTTCAAGACTGCAGATAAGAAGCTCCTTTTGGA
ACAAGCAGCAAATGAGATATGGGAATCCATAAAATCAGGCACTGCTCTTGAAAACCCTGT
ACTCCTCAACAAGTTCCTCCTCTTGACATTTGCAGATCTAAAGAAGTACCACTTCTACTA
TTGGTTTTGCTATCCTGCCCTCTGTCTTCCAGAGAGTTTACCTCTCATTCAGGGGCCAGT
GGGTTTGGATCAAAGGTTTTCACTAAAACAGATTGAAGCACTAGAGTGTGCATATGATAA
TCTTTGTCAAACAGAAGGAGTCACAGCTCTTCCTTACTTCTTAATCAAGTATGATGAGAA
CATGGTGCTGGTTTCCTTGCTTAAACACTACAGTGATTTCTTCCAAGGTCAAAGGACGAA
GATAACAATTGGTGTATATGATCCCTGTAACTTAGCCCAGTACCCTGGATGGCCTTTGAG
GAATTTTTTGGTCCTAGCAGCCCACAGATGGAGTAGCAGTTTCCAGTCTGTTGAAGTTGT
TTGCTTCCGTGACCGTACCATGCAGGGGGCGAGAGACGTTGCCCACAGCATCATCTTCGA
AGTGAAGCTTCCAGAAATGGCATTTAGCCCAGATTGTCCTAAAGCAGTTGGATGGGAAAA
GAACCAGAAAGGAGGCATGGGACCAAGGATGGTGAACCTCAGTGAATGTATGGACCCTAA
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TACTTTAGACTTGGACAAGGTTGTGTCTGTCAAATGTCTGCTGCTTGGAGCCGGCACCTT
GGGTTGCAATGTAGCTAGGACGTTGATGGGTTGGGGCGTGAGACACATCACATTTGTGGA
CAATGCCAAGATCTCCTACTCCAATCCTGTGAGGCAGCCTCTCTATGAGTTTGAAGATTG
CCTAGGGGGTGGTAAGCCCAAGGCTCTGGCAGCAGCGGACCGGCTCCAGAAAATATTCCC
CGGTGTGAATGCCAGAGGATTCAACATGAGCATACCTATGCCTGGGCATCCAGTGAACTT
CTCCAGTGTCACTCTGGAGCAAGCCCGCAGAGATGTGGAGCAACTGGAGCAGCTCATCGA
AAGCCATGATGTCGTCTTCCTATTGATGGACACCAGGGAGAGCCGGTGGCTTCCTGCCGT
CATTGCTGCAAGCAAGAGAAAGCTGGTCATCAATGCTGCTTTGGGATTTGACACATTTGT
TGTCATGAGACATGGTCTGAAGAAACCAAAGCAGCAAGGAGCTGGGGACTTGTGTCCAAA
CCACCCTGTGGCATCTGCTGACCTCCTGGGCTCATCGCTTTTTGCCAACATCCCTGGTTA
CAAGCTTGGCTGCTACTTCTGCAATGATGTGGTGGCCCCAGGAGATTCAACCAGAGACCG
GACCTTGGACCAGCAGTGCACTGTGAGTCGTCCAGGACTGGCCGTGATTGCAGGAGCCCT
GGCCGTGGAATTGATGGTATCTGTTTTGCAGCATCCAGAAGGGGGCTATGCCATTGCCAG
CAGCAGTGACGATCGGATGAATGAGCCTCCAACCTCTCTTGGGCTTGTGCCTCACCAGAT
CCGGGGATTTCTTTCACGGTTTGATAATGTCCTTCCCGTCAGCCTGGCATTTGACAAATG
TACAGCTTGTTCTTCCAAAGTTCTTGATCAATATGAACGAGAAGGATTTAACTTCCTAGC
CAAGGTGTTTAATTCTTCACATTCCTTCTTAGAAGACTTGACTGGTCTTACATTGCTGCA
TCAAGAAACCCAAGCTGCTGAGATCTGGGACATGAGCGACGATGAGACCATCTGAGATGG
CCCCGCTGTGGGGCTGACTTCTCCCCGGCCGCCTGCTGAGGAGCTCTCCATCGCCAGAGC
AGGACTGCTGACCCCAGGCTTGGTGATTCTGGGCCCCTCCTCCATACCCCGAGGTCTGGG
ATTCCCCCCTCTGCTGCCCAGGAGTGGCCAGTGTTCGGCGTTGCTCGGGATTCAAGATAC
CACCAGTTCAGAGCTAAATAATAACCTTGGCCTTGGCCTTGCTATTGACCTGGGAAAAAA
AAAAAAAAAAAACTCGAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_006395 unedited
TTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCCGGAAGTTGAGCGG
CGGCAAGAAATAATGGCGGCAGCTACGGGGGATCCTGGACTCTCTAAACTGCAGTTTGCC
CCTTTTAGTAGTGCCTTGGATGTTGGGTTTTGGCATGAGTTGACCCAGAAGAAGCTGAAC
GAGTATCGGCTGGATGAAGCTCCCAAGGACATTAAGGGTTATTACTACAATGGTGACTCT
GCTGGGCTGCCAGCTCGCTTAACATTGGAGTTCAGTGCTTTTGACATGAGTGCTCCCACC
CCAGCCCGTTGCTGCCCAGCTATTGGAACACTGTATAACACCAACACACTCGAGTCTTTC
AAGACTGCAGATAAGAAGCTCCTTTTGGAACAAGCAGCAAATGAGATATGGGAATCCATA
AAATCAGGCACTGCTCTTGAAAACCCTGTACTCCTCAACAAGTTCCTCCTCTTGACATTT
GCAGATCTAAAGAAGTACCACTTCTACTATTGGTTTTGCTATCCTGCCCTCTGTCTTCCA
GAGAGTTTACCTCTCATTCAGGGGCCAGTGGGTTTGGATCAAAGGTTTTCACTAAAACAG
ATTGAAGCACTAGAGTGTGCATATGATAATCTTTGTCAAACAGAAGGAGTCACAGCTCTT
CCTTACTTCTTAATCAAGTATGATGAGAACATGGTGCTGGTTTCCTTGCTTAACACTACA
GTGATTTCTTTCAGGTCAAAGGACGAAGATAACATTGGTGTATATGATCCCCNTGTACTA
CCCAGTACCCTGGATGGCCTTTGAGGGATNTTTAGTCCTAGCAGCCACAGATGGAGTANN
CAGTTCCAGTCTGGTGAAAGTGTTTGCTTCCGTGACCGTACATGCAGGGGGCGANAGAAC
GTGC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_006395 unedited
ATGGACCGCGGCCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTCCCAGTCAATAG
CAAGGCCAAGGCCAAGGTTATTATTTAGCTCTGAACTGGTGGCATCTTGAATCCCGAGCA
ACGCCGAACACTGGCCACTCCTGGGCAGCAGAGGGGGGAATCCCAGACCTCGGGGTATGG
AGGAGGGGCCCAGAATCACCAAGCCTGGGGTCAGCAGTCCTGCTCTGGCGATGGAGAGCT
CCTCAGCACGCGGCCGGGGAGAAGTCAGCCCCACAGCGGGGCCATCTCAGATGGTCTCAT
CGCCGCTCATGTCCCAGATCTCAGCAGCTTGGGTTTCTTGATGCAGCAATGTAAGACCAG
TCAAGTCTTCTAAGAAGGAATGTGAAGAATTAAACCCCTTGGCTAGGAAGTTAACTCCTT
CTCGCTCATATCGATCAACAACTTTGGAAGAACAAGCTGTACATTTGTCAAATTGCCAGG
CTGACGGGAAGGACATCTTCAAACCGTGAAAGAAATCCCCGGTTCTGGCGAGGCACAACC
CCCAAAAAGGTTGGAGGCTCTTTATTCCCGATCGCACTTGTGCTTGGCAATGGCTTAACC
CCCTTTATGGATGCTGCAAAACACATACCCATTCATTCCACCGCGCCGGGCTCCTGCATC
CACCGCGCATCCAGGAAAACCCACACCGCCACTGTGGGTCCAAGGTCCGCGCCTCGGACA
AATCTTCTGGGCCCCCCCCTTTTTCACATATCTATACCCCTCCTTCGTACCCCTGGCCCC
CGACACAAACCCAGTGCTCCACCAGCGCCACCCAACCCCCACGCGGCCCCGGACACAGTC
CCCCCGCCCCCCGTGTGCTCGTTCCCTTNTCCCATCCCCCACCACCCT

Restriction Sites: NotI-NotI

ACCN: NM_006395

Insert Size: 2380 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_006395.1, NP_006386.1
RefSeq Size:	2396 bp
RefSeq ORF:	2112 bp
Locus ID:	10533
UniProt ID:	O95352
Cytogenetics:	3p25.3
Domains:	ThiF
Protein Pathways:	Regulation of autophagy
Gene Summary:	This gene encodes an E1-like activating enzyme that is essential for autophagy and cytoplasmic to vacuole transport. The encoded protein is also thought to modulate p53-dependent cell cycle pathways during prolonged metabolic stress. It has been associated with multiple functions, including axon membrane trafficking, axonal homeostasis, mitophagy, adipose differentiation, and hematopoietic stem cell maintenance. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015] Transcript Variant: This variant (1), as well as variants 4, 5, 6, and 7, encodes the longest isoform (a).