

Product datasheet for **RG215079**

ATG7 (NM_006395) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATG7 (NM_006395) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ATG7
Synonyms:	APG7-LIKE; APG7L; GSA7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG215079 representing NM_006395
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGCAGCTACGGGGATCCTGGACTCTCTAACTGCAGTTGCCCTTTTAGTAGTGCCTTGGATG
 TTGGGTTTTGGCATGAGTTGACCCAGAAGAAGCTGAACGAGTATCGGCTGGATGAAGCTCCCAAGGACAT
 TAAGGGTTATTACTACAATGGTACTCTGCTGGGCTGCCAGCTCGCTTAACATTGGAGTTCAGTGCCTTT
 GACATGAGTGTCCCACCCAGCCGTTGCTGCCAGCTATTGGAACACTGTATAACACCAACACACTCG
 AGTCTTTCAAGACTGCAGATAAGAAGCTCTTTTGAACAAGCAGCAAATGAGATATGGGAATCCATAAA
 ATCAGGCACTGCTCTGAAAACCCTGTACTCTCAACAAGTTCTCTCTTGACATTTGCAGATCTAAAG
 AAGTACCCTTACTATTGGTTTTGCTATCCTGCCCTGTCTTCCAGAGAGTTTACCTCTCATTGAGG
 GGCCAGTGGGTTGGATCAAAGTTTTCACTAAAACAGATTGAAGCACTAGAGTGTGCATATGATAATCT
 TTGTCAAACAGAAGGAGTACAGCTCTTCTTACTTCTTAATCAAGTATGATGAGAACATGGTGCTGGTT
 TCCTTGCTTAAACTACAGTGATTTCTTCCAAGGTCAAAGGACGAAGATAACAATTTGGTGATATGATC
 CCTGTAACCTAGCCAGTACCCTGGATGGCCTTTGAGGAATTTTTTGGTCTAGCAGCCACAGATGGAG
 TAGCAGTTCCAGTCTGTTGAAGTTGTTGCTTCCGTGACCGTACCATGCAGGGGGCAGAGACGTTGCC
 CACAGCATCATCTTGAAGTGAAGCTTCCAGAAATGGCATTAGCCAGATTGTCCTAAAGCAGTTGGAT
 GGGAAAAGAACCAGAAAGGAGGCATGGGACCAAGGATGGTGAACCTCAGTGAATGTATGGACCCTAAAAG
 GTTAGCTGAGTCATCAGTGGATCTAAATCTCAACTGATGTGTTGGAGATTGGTTCTACTTTAGACTTG
 GACAAGTTGTGTCTGTCAAATGTCTGCTTGGAGCCGGCACCTTGGTTGCAATGTAAGTCTAGGACGT
 TGATGGGTTGGGCGTGAGACACATCACATTTGTGGACAATGCCAAGATCTCTACTCCAATCCTGTGAG
 GCAGCCTCTATGAGTTTGAAGATTGCCTAGGGGGTGGTAAGCCCAAGGCTCTGGCAGCAGCGGACCGG
 CTCCAGAAAATATTCCCCGGTGTGAATGCCAGAGGATTCAACATGAGCATACCTATGCCTGGGCATCCAG
 TGAACCTCTCCAGTGCTACTCTGGAGCAAGCCCGCAGAGATGTGGAGCAACTGGAGCAGCTCATCGAAA
 CCATGATGTGCTTCTCTATTGATGGACACCAGGGAGAGCCGGTGGCTTCTGCCGTCATTGCTGCAAGC
 AAGAGAAAGCTGGTCAATGCTGCTTTGGGATTTGACACATTTGTTGTCATGAGACATGGTCTGAAGA
 AACCAAAGCAGCAAGGAGCTGGGACTTGTGTCAAAACACCCTGTGGCATCTGCTGACCTCCTGGGCTC
 ATCGCTTTTTGCCAATCCCTGGTTACAAGCTTGGCTGCTACTTCTGCAATGATGTGGTGGCCCCAGGA
 GATTCAACCAGAGACCGACCTTGGACCAGCAGTGCCTGTGAGTCGTCAGGACTGGCCGTGATTGCAG
 GAGCCCTGGCCGTGGAATTGATGGTATCTGTTTTGCAGCATCCAGAAGGGGGCTATGCCATTGCCAGCAG
 CAGTGACGATCGGATGAATGAGCCTCCAACCTCTCTTGGGCTTGTGCCTACCAGATCCGGGGATTTCTT
 TCACGGTTTGATAATGCTTCCCGTCAGCCTGGCATTGACAAAATGTACAGCTTGTCTTCCAAAGTTC
 TTGATCAATATGAACGAGAAGGATTTAACTTCTAGCCAAGGTGTTAATTCTTCACATTCCTTCTAGA
 AGACTTGACTGGTCTTACATTGCTGCATCAAGAAACCAAGCTGCTGAGATCTGGGACATGAGCGACGAT
 GAGACCATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG215079 representing NM_006395
Red=Cloning site Green=Tags(s)

```

MAAATGDPGLSKLQFAPFSSALDVGFWHEL TQKKLNEYRLDEAPKDIKYYYNGDSAGLPARLTLEFSAF
DMSAPTPARCCPAIGTL YNTNTLESFKTADKLLLEQAANEIWESI KSGTALENPVLLNKFLLLTFADLK
KYHFYYWF CYPALCLPE SLPLIQGPVGLDQRFSLKQIEALECAYDNL CQTEGVTALPYFLIKYDENMVLV
SLLKHYSDF FQQRTKIT IGVYDPCNL AQYPGWPLRNFLVLA AHRWSSSFQSV EVCFRDRMTMQGARDVA
HSIIFEVKLP EMAFSPDCPKAVGWEKNQKGGMGPRMVNL SECMDPKRLA ESSVDLNLKLMCWRLVPTLDL
DKVVSVKCLLLGAGTLGCNVARTLMGWGVRHITFVDNAKISYSNPVRQPL YEFEDCLGGGPKALAAADR
LQKIFPGVNARGFNMSIPMPGHPVNFSSVTLEQARRDVEQLEQL IESH DVVFLMDTRESRWLP AVIAAS
KRKLVINAALGFDTFVVMRHGLKPKQGGADLCPNHPVASADLLGSSLF ANIPGYKLG CYFCNDVVAPG
DSTRDRTL DQQCTVSRPGLAVIAGALAVELMVSVLQHPEGGYA IASSDDRMNEPPTSLGLVPHQIRGFL
SRFDNVL PVSLAFDKCTACSSKVL DQYEREGFNFLAKVFNSSHSFLEDL TGLTLLHQETQAAE IWDMSDD
ETI
    
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006395

ORF Size: 2109 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_006395.1](#), [NP_006386.1](#)

RefSeq Size: 2396 bp

RefSeq ORF: 2112 bp

Locus ID: 10533

UniProt ID: [O95352](#)

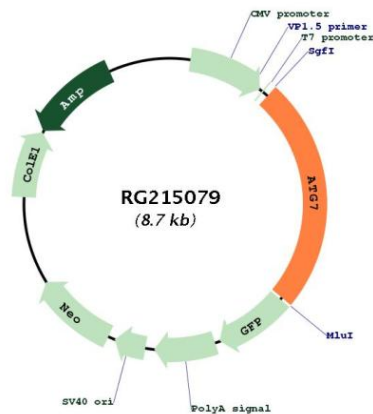
Cytogenetics: 3p25.3

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]

Product images:



Circular map for RG215079