

Product datasheet for **RC215079**

ATG7 (NM_006395) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATG7 (NM_006395) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATG7
Synonyms:	APG7-LIKE; APG7L; GSA7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC215079 representing NM_006395
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCGCAGCTACGGGGATCCTGGACTCTCTAAACTGCAGTTTCCCCCTTTAGTAGTGCCTTGGATG
TTGGGTTTTGGCATGAGTTGACCCAGAAGAAGCTGAACGAGTATCGGCTGGATGAAGCTCCCAAGGACAT
TAAGGGTTATTACTACAATGGTACTCTGCTGGGCTGCCAGCTCGCTTAACATTGGAGTTCAGTGCCTTT
GACATGAGTGCTCCACCCAGCCGTTGCTGCCAGCTATTGGAACACTGTATAACACCAACACACTCG
AGTCTTTCAAGACTGCAGATAAGAAGCTCTTTTGAACAAGCAGCAAATGAGATATGGGAATCCATAAA
ATCAGGCACTGCTCTGAAAACCCTGTACTCTCAACAAGTTCTCTCTTGACATTTGCAGATCTAAAG
AAGTACCCTTCTACTATTGGTTTTGCTATCTGCCCTGTCTTCCAGAGAGTTTACCTCTCATTGAGG
GGCCAGTGGGTTGGATCAAAGTTTTCACTAAAACAGATTGAAGCACTAGAGTGTGCATATGATAATCT
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TCCTTGCTTAAACACTACAGTGATTTCTTCCAAGGTCAAAGGACGAAGATAACAATTGGTGATATGATC
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TAGCAGTTCCAGTCTGTTGAAGTTGTTGCTTCCGTGACCGTACCATGCAGGGGGCAGAGACGTTGCC
CACAGCATCATCTTGAAGTGAAGCTTCCAGAAATGGCATTAGCCAGATTGTCCTAAAGCAGTTGGAT
GGGAAAAGAACCAGAAAGGAGGCATGGGACCAAGGATGGTGAACCTCAGTGAATGTATGGACCCTAAAAG
GTTAGCTGAGTCATCAGTGGATCTAAATCTCAAAGTGTGTGGAGATTGGTTCTACTTTAGACTTG
GACAAGGTTGTGTCTGTCAAATGTCTGCTGCTTGGAGCCGGCACCTTGGGTTGCAATGAGCTAGGACGT
TGATGGGTTGGGCGTGAGACACATCACATTTGTGGACAATGCCAAGATCTCTACTCCAATCCTGTGAG
GCAGCCTCTATGAGTTTGAAGATTGCCTAGGGGGTGGTAAGCCCAAGGCTCTGGCAGCAGCGGACCGG
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GATTCAACCAGAGACCGACCTTGGACCAGCAGTGCAGTGTGAGTCGTCAGGACTGGCCGTGATTGCAG
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AGACTTGACTGGTCTTACATTGCTGCATCAAGAAACCAAGCTGCTGAGATCTGGGACATGAGCGACGAT
GAGACCATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC215079 representing NM_006395
Red=Cloning site Green=Tags(s)

MAAATGDPGLSKLQFAPFSSALDVGFWHEL TQKKLNEYRLDEAPKDIKGYYYNGDSAGLPARLTLEFSAF
DMSAPTPARCCPAIGTL YNTNTLESFKTADKLLLEQAANEIWESIKSGTALENPVLLNKFLLLTFADLK
KYHFYYWF CYPALCLPESLPLIQGPVGLDQRFSLKQIEALECAYDNL CQTEGVTALPYFLIKYDENMVLV
SLLKHYSDF FQQRTKITIGVYDPCNLAQYPGWPLRNFLVLAHRWSSSFQSVEVVCFRDRTMQGARDVA
HSIIFEVKLP EMAFSPDCPKAVGWEKNQKGGMGRMVNLSECMDPKRLAESSVDLNLKLMCWRLVPTLDL
DKVYSVKCLLLGAGTLGCNVARTLMGWGVRHITFVDNAKISYSNPVRQPLYEFEDCLGGGPKALAAADR
LQKIFPGVNARGFNMSIPMPGHPVNFSSVTLEQARRDVEQLEQLIESHDVVFLMDTRESRWLPAVIAAS
KRKLVINAALGFDTFVVMRHGLKPKQGGADLCPNHPVASADLLGSSLFANIPGYKLGICYFCNDVVAPG
DSTRDRTL DQQT VSRPGLAVIAGALAVELMVSVLQHPEGGYA IASSDDRMNEPPTSLGLVPHQIRGFL
SRFDNVL PVS LAFDKCTACSSKVL DQYEREGFNFLAKVFNSSHSFLEDL TGLTLLHQETQAAE IWDMSDD
ETI

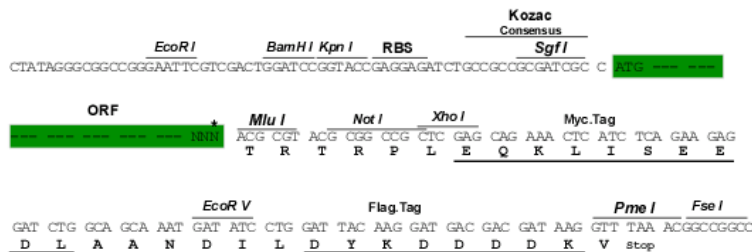
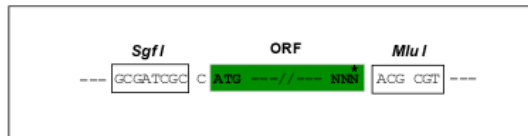
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6162_d12.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_006395

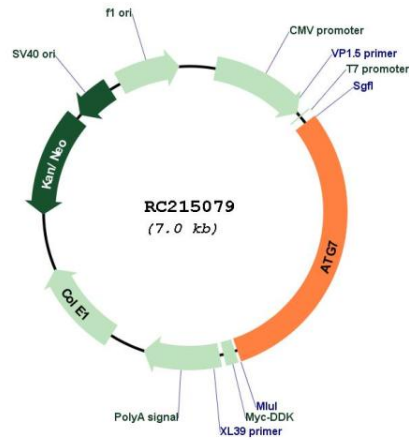
ORF Size: 2109 bp

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](#)

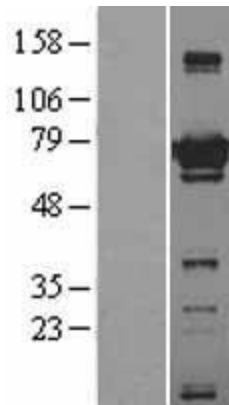
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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.
RefSeq:	NM_006395.3
RefSeq Size:	2396 bp
RefSeq ORF:	2112 bp
Locus ID:	10533
UniProt ID:	O95352
Cytogenetics:	3p25.3
Domains:	ThiF
Protein Pathways:	Regulation of autophagy
MW:	77.8 kDa
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]

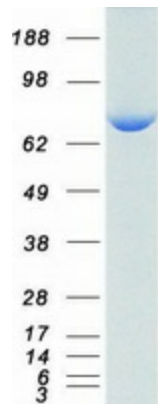
Product images:



Circular map for RC215079



Western blot validation of overexpression lysate (Cat# [LY401928]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215079 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATG7 protein (Cat# [TP315079]). The protein was produced from HEK293T cells transfected with ATG7 cDNA clone (Cat# RC215079) using MegaTran 2.0 (Cat# [TT210002]).