

Product datasheet for **RG226545**

ATG7 (NM_001144912) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATG7 (NM_001144912) 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)



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ORF Nucleotide Sequence:

>RG226545 representing NM_001144912
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGCAGCTACGGGGATCCTGGACTCTCTAACTGCAGTTGCCCTTTAGTAGTCCTTGATG
 TTGGGTTTTGGCATGAGTTGACCCAGAAGAAGCTGAACGAGTATCGGCTGGATGAAGCTCCAAGGACAT
 TAAGGGTTATTACTACAATGGTACTCTGCTGGGCTGCCAGCTCGCTTAACATTGGAGTTCAGTGCTTTT
 GACATGAGTGCTCCACCCAGCCGTTGCTGCCAGCTATTGGAACACTGTATAACACCAACACACTCG
 AGTCTTTCAAGACTGCAGATAAGAAGCTCTTTTGAACAAGCAGCAAATGAGATATGGGAATCCATAAA
 ATCAGGCACTGCTCTGAAAACCCTGTACTCTCAACAAGTTCTCTCTTGACATTTGCAATTGAAGCA
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 ATGATGAGAACATGGTGTGTTTCTTGTCTTAAACTACAGTGATTTCTTCAAGGTCAAAGGACGAA
 GATAACAATTGGTGTATATGATCCCTGTAACCTAGCCAGTACCCTGGATGGCCTTTGAGGAATTTTTTG
 GTCTAGCAGCCACAGATGGAGTAGCAGTTTCCAGTCTGTTGAAGTTGTTTGTCTCCGTGACCGTACCA
 TGCAGGGGGCAGAGACGTTGCCACAGCATCATCTTCAAGTGAAGCTTCCAGAATGGCATTTAGCCC
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 TGTGATGAGACATGGTCTGAAGAAACCAAGCAGCAAGGAGCTGGGGACTTGTGTCAAACCACCCTGTG
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 GCAATGATGTGGTGGCCCCAGGAGATTAACCAGAGACCGGACCTTGACCAGCAGTGCCTGTGAGTGC
 TCCAGGACTGGCCGTGATTGCAGGACCCTGGCCGTGGAATTGATGGTATCTGTTTTGCAGCATCCAGAA
 GGGGGCTATGCCATTGCCAGCAGCAGTACGATCGGATGAATGAGCCTCCAACTCTCTGGGCTTGTGC
 CTACCAGATCCGGGATTTCTTTCACGGTTTGATAATGTCTTCCCGTCAGCCTGGCATTGACAAATG
 TACAGTTGTTCTTCAAATCTGGGACATGAGCGATGATGAGACCATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG226545 representing NM_001144912
 Red=Cloning site Green=Tags(s)

MAAATGDPGLSKLQFAPFSSALDVGFWHELTQKKLNEYRLDEAPKDIKGYYYNGDSAGLPARLTLEFSAF
 DMSAPTPARCCPAIGTLYNTNLTLESFKTADKLLLEQAANEIWESIKSGTALENPVLLNKFLLLTF AIEA
 LECAYDNLQTEGVTALPYFLIKYDENMVLVSLKHYSDFFQGRKTKITIGVYDPCNLAQYPGWPLRNFL
 VLAHRWSSSFQSVVCFRDRMTMQGARDVAHSIIFEVKLPEMAFSPDCPKAVGWEKNQKGGMGPRMVNL
 SECMDPKRLAESSVDLNLKLMCWRLVPTLDLKVVSVKCLLLGAGTLGCNVARTLMGWGVRHITFVDNAK
 ISYSNPVRQPLYEFEDCLGGGPKALAAADRLQKIFPGVNARGFNMSIPMPGHPVNFSSVTLEQARRDVE
 QLEQLIESHDVVFLLMDTRESRWLPAVIAASKRKLVINAAALGFDTFVVMRHGLKPKQAGDLCPNHPV
 ASADLLGSSLFANIPGYKLGCFYCNVDVAPGDSTRDRTLDDQCTVSRPGLAVIAGALAVELMYSVLQHPH
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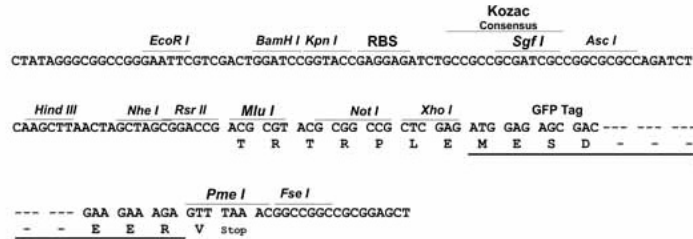
TRTRPLE - GFP Tag - V

Restriction Sites:

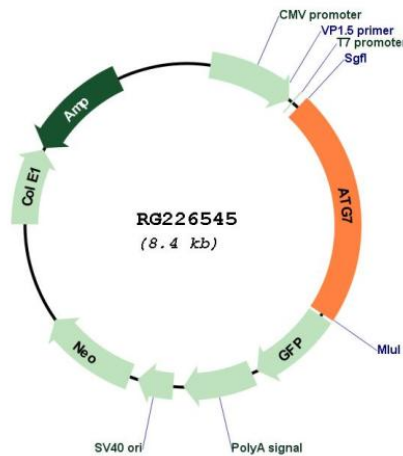
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001144912
 ORF Size: 1869 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_001144912.2
RefSeq Size:	4819 bp
RefSeq ORF:	1872 bp
Locus ID:	10533
UniProt ID:	O95352
Cytogenetics:	3p25.3
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]