

Product datasheet for **MG210108**

Atg7 (NM_028835) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atg7 (NM_028835) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Atg7
Synonyms:	1810013K23Rik; Agp7; Apg7l; Atg7l; Gm21553
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210108 representing NM_028835
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGGGACCCTGGACTGGCCAAGTTGCAGTTCGCCCCCTTTAATAGTGCCTGGACGTTGGCTTCTGGC
 ACGAACTGACCCAGAAGAAGTTGAACGAGTACCGCCTGGACGAGGCACCCAAAGACATCAAGGGCTATTA
 CTAACAATGGTGACTCTGCTGGTCTGCCACCCGCTTGACGTTGGAGTTCACTGCTTTTGACATGAGTGCC
 TCCACGCCTGCCACTGCTGCCCGGCCATGGGAACCTGCACAACACCAACACACTTGAGGCTTTTAAGA
 CAGCAGACAAGAAGCTCCTTCTGGAGCAGTCAGCAAATGAGATCTGGGAAGCCATAAAGTCAGGTGCTGC
 TCTCGAAAACCCATGCTCCTCAACAAGTTTCTGCTCCTGACCTTCGCGGACCTAAAGAAGTACCACTTC
 TACTACTGGTTTTGCTGCCCGCCCTCTGTCTTCTGAGAGCATCCCTCTAATCCGGGGACCTGTGAGCT
 TGGATCAAAGGCTTTCACCAAAACAGATCCAGGCCCTGGAGCATGCCTATGATGATCTGTGTCGAGCCGA
 AGGCGTCACGGCCCTGCCCTACTTCTTATTCAAGTACGATGACGACACTGTTCTGGTCTCCTTGCTCAA
 CACTACAGTGATTTCTTCCAAGTCAAAGGACAAAGATAACAGTTGGTGTGTACGATCCCTGTAACCTAG
 CCCAGTACCCTGGATGGCCTTTGAGGAATTTTTGGTCTGCGAGCCACAGATGGAGCGGCAGTTTCCA
 GTCCGTTGAAGTCTCTGCTTTGCGGACCCGACCATGCAGGGAGCTAGAGACGTGACACATAGCATCATC
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 CTTCTGCTAATGGACACCAGGGAGAGCCGGTGGCTTCTACTGTTATTGCAGCCAGCAAGCGAAAGCTG
 GTCATCAACGCTGCCTTGGGGTTTGATACCTTTGTTGTCATGAGACATGGCCTGAAGAAACCAAGCAGC
 AGGGAGCCGGAGACCTCTGCCAAGCCATCTGTAGCACCTGCTGACCTGGGCTCCTCACTTTTTGCCAA
 CATCCCTGGATACAAGCTTGGCTGCTACTTCTGCAATGATGTGGTGGCTCCAGGAGATTCACCAGAGAC
 CGGACTCTGGACCAGCAGTGCACAGTGAAGCCCGCCAGGCCCTGGCCGTGATTGCAGGTGCCCTGGCTGTGG
 AGCTGATGGTCTCTGCTGTCAGCATCCTGAGGGGGGCTACGCCATCGCCAGCAGCAGTGTGACCGCAT
 GAATGAGCCTCCACCTCGCTGGGACTTGTGCCTCACCAGATCCGGGGTTTTCTGTACAGGTTCCGATAAT
 GTTCTTCTGTCAGCCTGGCATTGATAAATGTACAGCCTGTTACCCAAAGTCTTGTATCAGTACGAGC
 GAGAAGGATTCACCTTCTAGCGAAGGTTTTAACTCCTCACATTCCTTCTAGAAGACTTGACCGGTCT
 TACCCTGCTCCATCAAGAGACCCAAGCTGCTGAGATCTGGGACATGAGTGACGAGGAGACTGTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210108 representing NM_028835
 Red=Cloning site Green=Tags(s)

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MGDPGLAKLQFAPFNALDVGFWHELTQKKLNEYRLDEAPKDIKGYYYNGDSAGLPTRLTLEFSAFDMSA
STPAHCCPAMGTLHNTNTLEAFKTADKKLLLEQSANEIWEAIKSGAALENPMLLNKFLLLTFADLKKYHF
YYWFCCPALCLPEIPLIRGPVSLDQRLSPKQIQALEHAYDDL CRAEGVTALPYFLFKYDDDTVLVSLLK
HYSDFQGRTKITVGVYDPCNLAQYPGWPLRNFLVLAHRWGSFQSVEVLCFRDRMQGARDVTHSII
FEVKLPEMAFSPDCPKAVGWEKNQKGGMPRMVNLSGCMDPKRLAESSVDLNLKLMCWRLVPTLDLKVY
SVKCLLLGAGTLCNVARTLMGWGVRHVTFVDNAKISYSNPVRQPLYEFEDCLGGGKPKALAAAERLQKI
FPGVNARGFNMSIPMPGHPVNFSDVTMEQARRDVEQLEQLIDNHDIIFLLMDTRESRWLPTVIAASKRKL
VINAALGFDTFVVMRHGLKPKQAGDLCPHSLVAPADLGSSEFANIPGYKLGCFYCNDDVVPAGDSTRD
RTLDDQCTVSRPLAVIAGALAVELMVSVLQHPEGGYAIASSDDRMNEPPTSLGLVPHQIRGFLSRFDN
VLPVSLAFDKCTACSPKVLQYEREGFTFLAKVFNSHSLFLEDL TGLTLLHQETQAAEIWMSDEETV
  
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TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_028835

ORF Size: 2094 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_028835.5](#)

RefSeq Size: 3061 bp

RefSeq ORF: 2097 bp

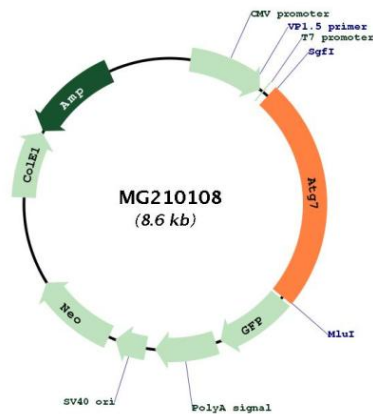
Locus ID: 74244

UniProt ID: [Q9D906](#)

Cytogenetics: 6 E3

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 MG210108