

Product datasheet for **MG226916**

Atg9a (NM_001003917) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atg9a (NM_001003917) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Atg9a
Synonyms:	Apg9l1; Atg9; Atg9l1; AU019532
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG226916 representing NM_001003917
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCACAGTTTGACACTGAATACCAGCGCTAGAGGCCTCTATAGCGATTGCCCCCGGGGAAGAGG
 ACCTGTTGGTGCATGTGGCCGAGGGGAGCAAATCACCTTGGCACCACATTGAAAACCTTGACCTCTTCTT
 CTCTCGAGTTTATAATCTCCACCAGAAGATGGCTTACATGTATGCTCATTGGAGAGATGTTTGAACCTC
 ATGCAGTTCCTCTTTGTGGTTGCCTTACCACCTTCTGGTTAGCTGTGTGGACTATGACATCCTCTTTG
 CCAACAAGATGGTGAACCACAGTCTCCATCCTACTGAGCCTGTCAAGGTCACTCTGCCAGATGCCTTTTT
 GCCTGCCCAAGTCTGTAGTGCCAGGATTCAGGAAAATGGCTCTCTTATCACCATCCTGGTCACTTGTGGT
 GTCTTCTGGATCCACCGCTTATCAAGTTTATCTATAACATTTGTGCTATTGGGAGATCCACTCCTTCT
 ACCTACATGCTCTTCGGATCCCAATGTCTGCCCTTCCATACTGCACATGGCAGGAAGTTCAGGCCGGAT
 TGTGCAGACGCAGAAAGAGCATCAGATCTGCATCCACAAGCGTGAGCTGACAGAGTTGGACATCTACCAT
 CGCATCTACGTTTCCAGAACTACATGGTGGCCCTGGTGAACAAATCCCTCCTGCCTCTGCGCTTCCGTC
 TGCCCCGGCCTCGGAGAGTTGTCTTCTTCAACCGTGGCCTCAAGTACAACCTTTGAGCTCATCCTCTTCTG
 GGGACCCGGCTCTCTGTTTCTCAATGAGTGGAGCCTCAAGGCCGAGTACAAACGTGGAGGGCAACGGCTA
 GAGCTGGCCCAGCGTCTCAGCAACCGCATCTTGTGGATTGGCATCGCCAACCTTCTGCTGTGTCCCTCA
 TCCTCATCTGGCAGATCCTCTATGCCTTCTTACGATATGCCGAGGTGCTGAAGAGAGAGCCGGGGCCCT
 GGGAGCGCTTGTGGTCACTCTATGGCCGTTGTTACCTCCGCCACTTCAATGAGCTGGAGCATGAGCTG
 CAGTCCCGCCTCAACCGAGGCTACAAGCCCGCCTCCAAGTACATGAATTGCTTCTTGTACCCTGCTGA
 CTCTGCTGGCCAAGAATGGTGCCTTCTTGGCTCTATCCTGGCTGTGCTTATTGCCCTCACCATCTA
 TGATGAAGATGTGTTAGCTGTGGAACACGTCCTACCACGCTCACCTCCTGGGAGTCACGGTGACTGTG
 TGACGGTCTTATCCCAGACCAGCACATGGTGTCTGCCCGAGCAGCTGCTCCGAGTGATTCTTGCAC
 ACATCCACTACATGCCTGACCACTGGCAGGGTAATGCCACCCTCGCAGACCCGGGACGAGTTGCCCA
 GCTCTTCCAGTACAAGGCAGTGTTCATCTTGGAGGAGTTGCTGAGTCCCATCGTCACACCCTCATTCTC
 ATCTTCTGCCTCCGCCCTCGGGCCTGGAGATCATAGACTTCTTCCGCAACTTTACGGTCCGAGGTCGTGG
 GTGTGGGAGACCTGCTCCTTTGCTCAGATGGACGTTCCGCCAGCATGGCCATCCTCAGTGGCTGTCTGG
 AGGGCAGACAGAGCCTCAGTGTACCAGCAAGCCGAGGACGGGAAGACCGAGTTGTGCTCATGCACCTT
 GCCATACCAATCCCGGCTGGCAGCCCCCTCGTGAGAGCACAGCTTTCCTGGGCTTCTCAAGGAGCAGG
 TGACGCGAGATGGAGCAGCTGCTGGCCTGGCCAGGGTGGCTGCTCCCCGAGAATGCCCTCTTACATC
 CATCCAGTCTTACAGTCTGAGTCCGAGCCACTGAGCCTTATTGCAAATGTGGTAGCAGGCTCATCTGC
 CGAGGACCCTCACTGTCCAGAGACCTGCAGGGCTCCAGGCACAGGGCTGATGTTGCTTCTGCCCTTCGAT
 CCTTCTCCCTCTGCAGCCTGGAGCGGCCCTCAAGGCCGGGTTCCAGTACCATGACAGGCTCTGGAGT
 GGATGCCAGGACAGCCAGCTCTGGGAGTAGCGTGTGGGAAGGACAGCTGCAGAGCCTGGTGTGTCCGAA
 TACGCGTCCACCGAGATGAGCCTGCACGCCCTGTACATGCACCAGCTCCACAAGCAGCAGACCCAGGCTG
 AGCCCCAGCGCATGTGTGGCACCGCCGGGAGAGTGTGAGAGTGGAGAGAGTCCCCCTGAAGAGGGGG
 AGAGGGTGCCCGGGCCCCCAACCCATCCCCGCTCGGCCAGCTATCCCTGTGCTACACCCGGCCTGGA
 GCACCTGAGACCACCGCCCTGCATGGGGCTTCCAGAGGCGCTACGGGGGCATCACAGATCCTGGCACAG
 TGCCCCGTGGCCCTCTCACTTCTCAGGCTGCCCTGGGAGGATGGGCAGAAGATGGCCAGCCAGCATC
 AAGGCACCAGAGCCGGTGCCAGAGGAGGGCTCAGAGGATGAACTCCCCCTCAAGTGCACAAGGTA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG226916 representing NM_001003917
 Red=Cloning site Green=Tags(s)

```

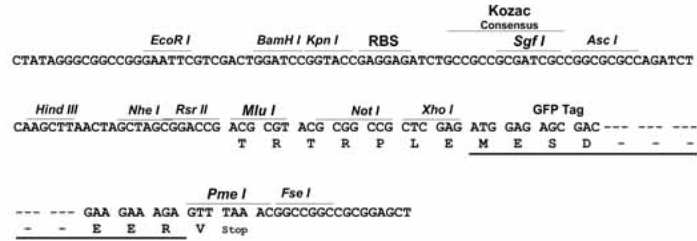
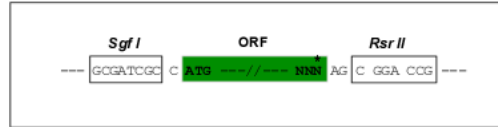
MAQFDTEYQRLEASYSPPGEEEDLLVHVAEGSKSPWHHIENLDLFFSRVYNLHQKNGFTCMLIGEMFEL
MQFLFVVAFTTFLVSCVDYDILFANKMVNHS LHPTVPKVTLPDAFLPAQVCSARIQENGLITILVIAG
VFWIHRLIKFIYNICCYWEIHSFYLHALRIPMSALPYCTWQEVQARIVQTQKEHQICIHKRELTELDIYH
RILRFQNYMVALVNKSLPLRFRLPGLGEVVFTRGLKYNFELILFWGPGSLFLNEWSLKA EYKRGGQRL
ELAQRLSNRILWIGIANFLLCPLILIWQILYAFFSYAEVLKREPGALGARCWSLYGRCYLRFNELEHEL
QSRLNRGYKPASKYMNCFLSPLLTLAKNGAFFAGSILAVLIALTIYDEDVLAVEHVLTTVTLLGVTVTV
CRSFIPDQHMVFCPEQLLRVILAHIHYPDHWQGNHRSTQTRDEFAQLFQYKAVF ILEELLSPIVTPILIL
IFCLRPRALEIIDFFRNFTVEVVGVDTC SFAQMDVRQHGHPQWL SGGQTEASVYQQAEDGKTELSLMHF
AITNPGWQPPRESTAFLGFLKEQVQRDGAAGLAQGGLLPENALFTSIQSLQSESEPLSLIANVVAGSSC
RGPSLSRDLQGSRRADVASALRSFSPLQPGAAPQGRVPTMTGSGVDARTASSGSSVWEGQLQSLV LSE
YASTEMSLHALYMHQLHKQQTQAEPERHVWHRRESDES GESAPEEGGEGARAPQPIPRSASYP CATPRPG
APETTALHGGFQRRYGGITDPGTVPRG PSHFSRLPLGGWAEDGQPASRHPEPVPEEGSEDELPPQVHKV
  
```

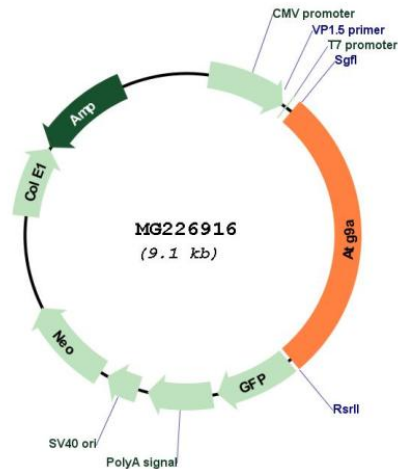
SGPTRRRLE - GFP Tag - V

Restriction Sites: Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_001003917

ORF Size: 2517 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_001003917.4](#), [NP_001003917.2](#)

RefSeq Size: 3764 bp

RefSeq ORF: 2520 bp

Locus ID: 245860

UniProt ID: [Q68FE2](#)

Cytogenetics: 1 C4

Gene Summary: Involved in autophagy and cytoplasm to vacuole transport (Cvt) vesicle formation. Plays a key role in the organization of the preautophagosomal structure/phagophore assembly site (PAS), the nucleating site for formation of the sequestering vesicle. Cycles between a juxta-nuclear trans-Golgi network compartment and late endosomes. Nutrient starvation induces accumulation on autophagosomes. Starvation-dependent trafficking requires ULK1, ATG13 and SUPT20H (By similarity). Required for carbonyl cyanide m-chlorophenylhydrazone (CCCP)-induced ATG8 family proteins lipidation, a key autophagy step.[UniProtKB/Swiss-Prot Function]