

## Product datasheet for **MG222915**

### **Atg16l1 (NM\_029846) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Atg16l1 (NM_029846) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Atg16l1
Synonyms:	1500009K01Rik; Apg16l; Atg16l; WDR30
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG222915 representing NM\_029846  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCGTCGGCCTGCGCGCCGAGACTTCCCGCTGGAAGCGTCACATCGCGGAGGAAGTCTGAGCGCC  
 GGGACCGACTGCAGAGGCAGGCGTTCGAGGAGATCATTCTGCAGTATACCAAGTTGCTGGAAAAGTCAGA  
 TCTTCATTCAAGTATTGACCCAGAAACTACAAGCAGAAAAGCATGACATGCCAAATAGGCATGAAATAAGT  
 CCTGGACATGATGGTGCCTGGAATGATAGTCAACTACAAGAAATGGCCAGTTGAGGATCAAACACCAGG  
 AAGAGCTGACCGAACTGCACAAGAAGCGTGGGAGTTAGCTCAGTTGGTATTGACCTGAACAACCAAT  
 GCAGCAGAAGGACAAGGAGATACAGATGAATGAAGCAAAGATTCGGAGTATTTACAGACCATCTCTGAC  
 CTGGAGACAACTGCCTGGACCTGCGCACCAACTGCAGGACCTCGAGGTAGCCAACCAGACCCTGAAGG  
 ATGAGTATGACGCCCTGCAGATTACTTTACTGCCCTAGAAGAGAAACTGAGGAAAAGTACTGAGGAGAA  
 CCAGGAACTGGTACCAGATGGATGGCTGAGAAGGCCAAGAAGCCAATCGCCTCAATGCAGAGAATGAG  
 AAGGACTCCAGGAGGCGTCAAGCACGGCTGCAGAAGGAGCTTGCAGAAGCAGCAAAGGAACCTCTACCTG  
 TTGAACAGGATGATGACATTGAAGTCATTGTGGATGAGACCTCAGACCACACAGAAGAGACCTCTCCCGT  
 CCGAGCTGTCAGCAGAGCAGCTACTAAGCGACTCTCGCAGCCTGCTGGAGGCCTTCTGGATTCTATCACT  
 AATATCTTTGGGAGACGCTCTGTCTCTCCATCCCAGTCCCCAGGATATCATGGACACTCATCTGCTT  
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 AGTGCAGTTCAGTCCAGGCTCCCGTTGCTGGCCACTGGAGGCATGGACCGCAGGGTGAAGTCTGGGAA  
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 GCACGGATTGTCTCAGGAAGTCACGACCGACCCTCAAACCTCTGGGATCTCCGCAGCAAAGTCTGCATAA  
 AAACAGTGTTCAGGATCCAGCTGCAATGACATTGTTTGCAGTGAACAATGTGTAATGAGTGGACATTT  
 TGACAAGAAAATTCGTTTCTGGGATATCCGGTCAGAGAGTGTGGTCCGAGAGATGGAAGTGTAGGGGAA  
 ATCACTGCTCTGGACCTAAACCCTGAGAGAAGTGGCTCCTGAGCTGCTCCCGTATGACCTGCTAAAAG  
 TCATCGACCTCCGACAAATGCAGTCAAACAGACATTAGTGCCTGGATTCAAATGCGGCTCTGACTG  
 GACCCGGTGTCTTTCAGCCCTGATGGCAGTTACGTGGCAGCAGGCTCAGCCGAGGGTCTCTTTATGTC  
 TGGAGTGTCTGACAGGAAAGTGGAGAAGTTCTTTCAAACAGCACAGCTCTTCTATCAATGCGGTGG  
 CGTGGGCCCTCGGGTACATGTTGTCAGTGTGACAAAGGAAGCAGAGCTGTCTGTGGGCACAGCC  
 T

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG222915 representing NM\_029846  
 Red=Cloning site Green=Tags(s)

MSSGLRAADFPRWKRHIAEELRRRDLRQRQAFEEIILQYTKLLEKSDLHSLVTQKLQAEKHDMPNRHEIS  
 PGHDGAWNDSQLQEMAQLRIKHQEELTELHKKRGELAQLVIDLNNMQQKDKIEIQMNEAKISEYLQTISSD  
 LETNCLDLRKLQDLEVANQTLKDEYDALQITFTALEEKLRKTTEENQELVTRWMAEKAQEANRLNAENE  
 KDSRRRQARLQKELAEAAKEPLPVEQDDIEVI VDETS DHTTEETSPVRAVSRAATKRLSQPAGLLDSIT  
 NIFGRRSVSSIPVQDIMDTHPASGKDVVPPTASVYVFD AHDGEVNAVQFSPGSRLLATGGMDRRVKLWE  
 AFGDKCEFKGSLSGSNAGITSIEFDSAGAYLLAASNDFASRIWTVDYRRLRHTLTGHSGKVL SAKFLLDN  
 ARIVSGSHDRTLKLDLRSKVCIKTVFAGSSCNDIVCTEQCVMSGHFDDKIRFWDIRSESVVREMELLGK  
 ITALDLNPERTELLSCSRDCLKVIDLRNAVQTF SAGPFGKCGSDWTRVVFSPDGSYVAAGSAEGLLY  
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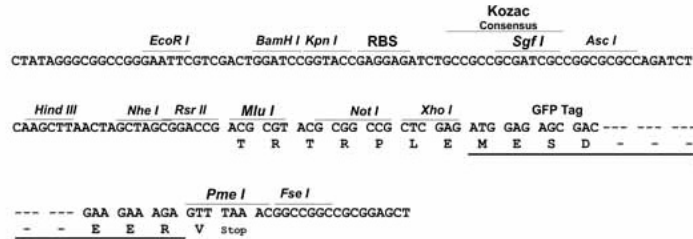
**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

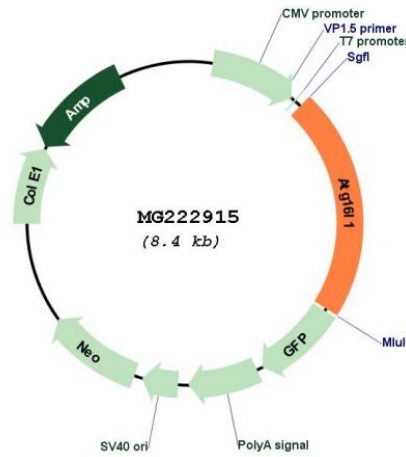
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_029846  
 ORF Size: 1821 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_029846.4</a> , <a href="#">NP_084122.2</a>
<b>RefSeq Size:</b>	3066 bp
<b>RefSeq ORF:</b>	1824 bp
<b>Locus ID:</b>	77040
<b>UniProt ID:</b>	<a href="#">Q8C0J2</a>
<b>Cytogenetics:</b>	1 D
<b>Gene Summary:</b>	Plays an essential role in autophagy: interacts with ATG12-ATG5 to mediate the conjugation of phosphatidylethanolamine (PE) to LC3 (MAP1LC3A, MAP1LC3B or MAP1LC3C), to produce a membrane-bound activated form of LC3 named LC3-II. Thereby, controls the elongation of the nascent autophagosomal membrane (PubMed:18849966, PubMed:12665549, PubMed:24954904, PubMed:24553140, PubMed:23392225). Regulates mitochondrial antiviral signaling (MAVS)-dependent type I interferon (IFN-I) production (By similarity). Negatively regulates NOD1- and NOD2-driven inflammatory cytokine response (PubMed:24238340). Instead, promotes with NOD2 an autophagy-dependent antibacterial pathway. Plays a role in regulating morphology and function of Paneth cell.[UniProtKB/Swiss-Prot Function]