

## Product datasheet for **MR222915**

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

#### **Product data:**

|                    |  |
|--------------------|--|
| Product Type:      | Expression Plasmids                        |
| Product Name:      | Atg16l1 (NM_029846) Mouse Tagged ORF Clone |
| Tag:               | Myc-DDK                                    |
| Symbol:            | Atg16l1                                    |
| Synonyms:          | 1500009K01Rik; Apg16l; Atg16l; WDR30       |
| Vector:            | pCMV6-Entry (PS100001)                     |
| E. coli Selection: | Kanamycin (25 ug/mL)                       |
| Cell Selection:    | Neomycin                                   |



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**ORF Nucleotide Sequence:**

>MR222915 representing NM\_029846  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCGTCGGCCTGCGCGCCGAGACTTCCCGCTGGAAGCGTCACATCGCGGAGGAAGTCTGAGCGCC  
 GGGACCGACTGCAGAGGCAGCGCTTCGAGGAGATCATTCTGCAGTATACCAAGTTGCTGGAAAAGTCAGA  
 TCTTCATTCAAGTATTGACCCAGAACTACAAGCAGAAAAGCATGACATGCCAAATAGGCATGAAATAAGT  
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 AAGAGCTGACCGAACTGCACAAGAAGCGTGGGAGTTAGCTCAGTTGGTATTGACCTGAACAACCAAT  
 GCAGCAGAAGGACAAGGAGATACAGATGAATGAAGCAAAGATTCGGAGTATTTACAGACCATCTCTGAC  
 CTGGAGACAACTGCCTGGACCTGCGCACCAACTGCAGGACCTCGAGGTAGCCAACCAGACCCTGAAGG  
 ATGAGTATGACGCCCTGCAGATTACTTTACTGCCCTAGAAGAGAACTGAGGAAACTACTGAGGAGAA  
 CCAGGAAGTGGTACCAGATGGATGGCTGAGAAGGCCAAGAAGCCAATCGCCTCAATGCAGAGAATGAG  
 AAGGACTCCAGGAGCGTCAAGCACGGCTGCAGAAGGAGCTTGCAGAAGCAGCAAAGGAACCTCTACCTG  
 TTGAACAGGATGATGACATTGAAGTCATTGTGGATGAGACCTCAGACCACACAGAAGAGACCTCTCCCGT  
 CCGAGCTGTCAGCAGAGCAGCTACTAAGCGACTCTCGCAGCCTGCTGGAGGCCTTCTGGATTCTATCACT  
 AATATCTTTGGGAGACGCTCTGTCTCTCCATCCCAGTCCCCAGGATATCATGGACACTCATCTGCTT  
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 AGTGCAGTTCAGTCCAGGCTCCCGTTGCTGGCCACTGGAGGCATGGACCGCAGGGTGAACCTTTGGGAA  
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 GACCCGGTGTCTTTCAGCCCTGATGGCAGTTACGTGGCAGCAGGCTCAGCCGAGGGTCTCTTTATGTC  
 TGGAGTGTCTGACAGGAAAGTGGAGAAGTTCTTTCAAACAGCACAGCTCTTCTATCAATGCGGTGG  
 CGTGGGCCCTCGGGCTTACATGTTGTCAGTGTGGACAAAGGAAGCAGAGCTGTCTGTGGGCACAGCC  
 T

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTAA

**Protein Sequence:**

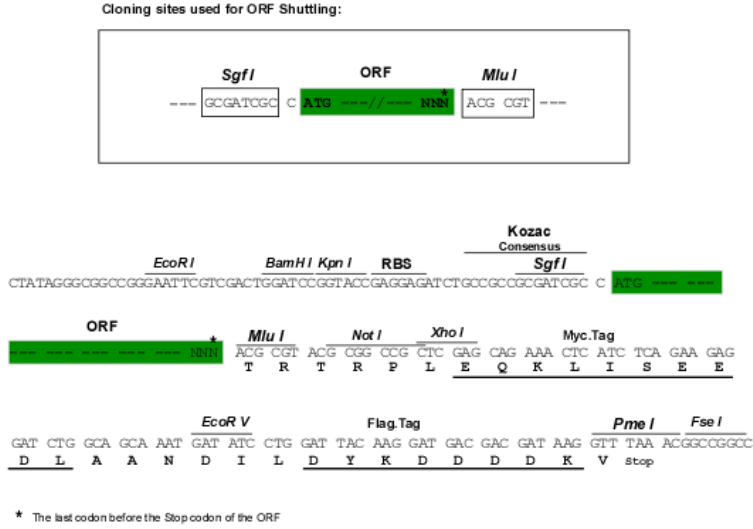
>MR222915 representing NM\_029846  
 Red=Cloning site Green=Tags(s)

MSSGLRAADFPRWKRHIAEELRRRDLRQRQAFEEIILQYTKLLEKSDLHSVLTQKLQAEKHMPPNRHEIS  
 PGHDGAWNDSQLQEMAQLRIKHQEELTELHKKRGELAQLVIDLNNQMQQKDKIEIQMNEAKISEYLQTISSD  
 LETNCLDLRKLQDLEVANQTLKDEYDALQITFTALEEKLKRTTEENQELVTRWMAEKAQEANRLNAENE  
 KDSRRRQARLQKELAEAAKEPLPVEQDDIEIVDETSDHTEETSPVRAVSRAATKRLSQPAGLLDSIT  
 NIFGRRSVSSIPVPQDIMDTHPASGKDVVPPTASVYVDAHDGEVNAVQFSPGSRLLATGGMDRRVKLWE  
 AFGDKCEFKGSLSGSNAGITSIEFDSAGAYLLAASNDFASRIWTVDDYRLRHTLTGHSKVL SAKFLLDN  
 ARIVSGSHDRTLKLWDLRSKVCIKTVFAGSSCNDIVCTEQCVMSGHFDKIRFDIRSESVVREMELLGK  
 ITALDLNPERTELLSCSRDILLKVIDLRNAVQKTF SAGPFKCGSDWTRVVFSPDGSYVAAGSAEGSLYV  
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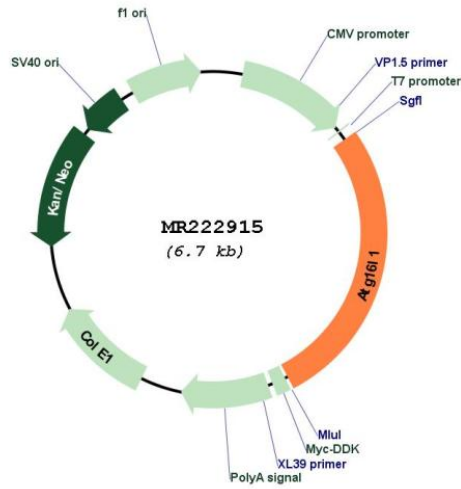
**TRTRP**LEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



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>MW:</b>                    | 68.6 kDa  |
| <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] |