

## Product datasheet for **MR209513**

### Atg16l1 (BC049122) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Atg16l1 (BC049122) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Atg16l1
Synonyms:	WDR30, Atg16l
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR209513 representing BC049122  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCGTCGGCCTGCGCGCCGAGACTTCCCGCTGGAAGCGTCACATCGCGGAGGAAGTCTGAGCGCC  
 GGGACCGACTGCAGAGGCAGGCGTTCGAGGAGATCATTCTGCAGTATACCAAGTTGCTGGAAAAGTCAGA  
 TCTTCATTCAAGTATTGACCCAGAAAACAAGCAGAAAAGCATGACATGCCAAATAGGCATGAAATAAGT  
 CCTGGACATGATGGTGCCTGGAATGATAGTCAACTACAAGAAATGGCCAGTTGAGGATCAAACACCAGG  
 AAGAGCTGACCGAACTGCACAAGAAGCGTGGGAGTTAGCTCAGTTGGTATTGACCTGAACAACCAAT  
 GCAGCAGAAGGACAAGGAGATACAGATGAATGAAGCAAAGATTCGGAGTATTTACAGACCATCTCTGAC  
 CTGGAGACAACTGCCTGGACCTGCGCACCAACTGCAGGACCTCGAGGTAGCCAACCAGACCCTGAAGG  
 ATGAGTATGACGCCCTGCAGATTACTTTACTGCCCTAGAAGAGAACTGAGGAAACTACTGAGGAGAA  
 CCAGGAACTGGTACCAGATGGATGGCTGAGAAGGCCAAGAAGCCAATCGCCTCAATGCAGAGAATGAG  
 AAGGACTCCAGGAGCGTCAAGCACGGCTGCAGAAGGAGCTTGCAGAAGCAGCAAAGGAACCTCTACCTG  
 TTGAACAGGATGATGACATTGAAGTCATTGTGGATGAGACCTCAGACCACACAGAAGAGACCTCTCCCGT  
 CCGAGCTGTCAGCAGAGCAGCTACTAAGCGACTCTCGCAGCCTGCTGGAGGCCTTCTGGATTCTATCACT  
 AATATCTTTGGTCTGTCCGAATCTCCCTTTGGGACATCATTCTTCTGATGCTGCCAGGAGACGCTCTG  
 TCTCTCCATCCCAGTCCCCAGGATATCATGGACACTCATCTGCTTCTGGTAAAGATGTGAGAGTCCC  
 AACTACTGCCTCGTATGTCTTCGATGCGCATGACGGAGAGGTCAACGCAGTGCAGTTCAGTCCAGGCTCC  
 CGTTGCTGGCCACTGGAGGCATGGACCGCAGGTTGAACTTTGGGAAGCATTGGAGATAAATGTAAT  
 TCAAGGCTCCCTGTCTGGCAGTAACTGCTGGAATTACAAGCATTGAATTTGATAGTCTGGAGCTTAACT  
 ATTAGCAGCTTCAAATGATTTTGAAGCCGAATCTGGACTGTGGATGATTATCGATTACGGCACACACTC  
 ACAGGCCACAGCGGAAAGTCTCTCTGCCAAGTCTGCTGGACAATGCACGGATTGTCTCAGGAAGTC  
 ACGACCGGACCCTCAAACCTGCGGATCTCCGACGAAAAGTCTGCATAAAAAACAGTGTTCAGGATCCAG  
 CTGCAATGACATTGTTGCACTGAACAATGTGTAATGAGTGGACATTTTGACAAGAAAATTCGTTTCTGG  
 GATATCCGGTCAAGAGTGTGGTCCGAGAGATGGAAGTGTAGGGAAGATCACTGCTCTGGACCTAAACC  
 CTGAGAGAACTGAGCTCCTGAGCTGCTCCCGTATGACCTGCTAAAAGTCATCGACCTCCGGACAAATGC  
 AGTCAAACAGACATTCAGTGCCTGGATTCAAATGCGGCTCTGACTGGACCCGGTGTCTTCAGCCCT  
 GATGGCAGTTACGTGGCAGCAGGCTCAGCCGAGGTTCTTTATGTCTGGAGTGTCTGACAGGAAAAG  
 TGGAGAAGTTCTTTCAAACAGCACAGCTCTTCTATCAATGCGGTGGCTGGGCCCCCTCGGGCTTACA  
 GTTTGTCAGTGTGACAAGGAAGCAGAGCTGTGCTGTGGGCACAGCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR209513 representing BC049122  
 Red=Cloning site Green=Tags(s)

MSSGLRAADFPRWKRHIAEELRRRDLRQRQAFEEIILQYTKLLEKSDLHSLVTQKLQAEKHDMPNRHEIS  
 PGHDGAWNDSQLQEMAQLRIKHQEELTELHKKRGELAQLVIDLNNQMQQKDEIQMNEAKISEYLQTI  
 SDLETNCLDLRKLQDLEVANQTLKDEYDALQITFTALEEKLKTTTEENQELVTRWMAEKAQEANRLNAENE  
 KDSRRRQARLQKELAEAAKEPLPVEQDDIEVI VDETSDHTEETSPVRAVSRAATKRLSQPAGLLDSIT  
 NIFGLSESPLLGHHSSDAARRRSVSSIPVPQDIMDTHPASGKDVRVPTTASYVFD AHDGEVNAVQFSPGS  
 RLLATGMDRRVKLWEAFGDKCEFKGSLSGSNAGITSIIEFDSAGAYLLAASNDFASRIWTVDDYRLRHTL  
 TGHSGKVL SAKFLLDNARIVSGSHDRTLKLDLRSKVCIKTVFAGSSCNDIVCTEQCVMSGHFDKIRFW  
 DIRSESVVREMELLGKITALDLNPERTELLSCSRDCLKVIDLRTNAVKQTF SAGFKCGSDWTRVVFSP  
 DGSYVAAGSAEGLYVWVSLTGKVEKVL SKQHSSSINAVAWAPSGLHVVSVDKGSRAVLWAQP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: BC049122

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:

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: [BC049122](#), [AAH49122](#)

RefSeq Size: 3132 bp

RefSeq ORF: 1871 bp

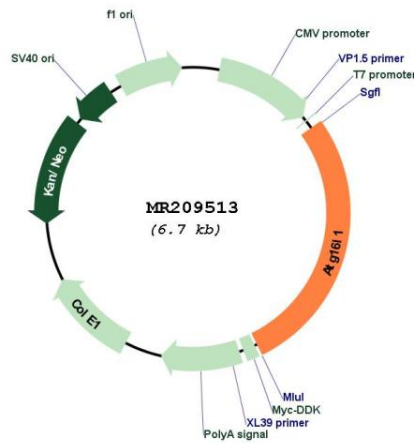
Locus ID: 77040

Cytogenetics: 1 D

**MW:** 114.8 kDa

**Gene Summary:** 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]

**Product images:**



Circular map for MR209513