

Product datasheet for **MG209513**

Atg16l1 (BC049122) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atg16l1 (BC049122) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Atg16l1
Synonyms:	WDR30, Atg16l
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209513 representing BC049122
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCGTCGGCCTGCGCGCCGAGACTTCCCGCTGGAAGCGTCACATCGCGGAGGAAGTCTGAGCGCC
 GGGACCGACTGCAGAGGCAGGCGTTCGAGGAGATCATTCTGCAGTATACCAAGTTGCTGGAAAAGTCAGA
 TCTTCATTCAAGTATTGACCCAGAACTACAAGCAGAAAAGCATGACATGCCAAATAGGCATGAAATAAGT
 CCTGGACATGATGGTGCCTGGAATGATAGTCAACTACAAGAAATGGCCAGTTGAGGATCAAACACCAGG
 AAGAGCTGACCGAACTGCACAAGAAGCGTGGGAGTTAGCTCAGTTGGTATTGACCTGAACAACCAAT
 GCAGCAGAAGGACAAGGAGATACAGATGAATGAAGCAAAGATTCGGAGTATTTACAGACCATCTCTGAC
 CTGGAGACAACTGCCTGGACCTGCGCACCAACTGCAGGACCTCGAGGTAGCCAACCAGACCCTGAAGG
 ATGAGTATGACGCCCTGCAGATTACTTTACTGCCCTAGAAGAGAACTGAGGAAACTACTGAGGAGAA
 CCAGGAAGTGGTACCAGATGGATGGCTGAGAAGGCCAAGAAGCCAATCGCCTCAATGCAGAGAATGAG
 AAGGACTCCAGGAGCGTCAAGCACGGCTGCAGAAGGAGCTTGCAGAAGCAGCAAAGGAACCTCTACCTG
 TTGAACAGGATGATGACATTGAAGTCATTGTGGATGAGACCTCAGACCACACAGAAGAGACCTCTCCCGT
 CCGAGCTGTCAGCAGAGCAGCTACTAAGCGACTCTCGCAGCCTGCTGGAGGCCTTCTGGATTCTATCACT
 AATATCTTTGGTCTGTCCGAATCTCCCCTTTGGGACATCATTCTTCTGATGCTGCCAGGAGACGCTCTG
 TCTCTCCATCCCAGTCCCCAGGATATCATGGACACTCATCTGCTTCTGGTAAAGATGTGAGAGTCCC
 AACTACTGCCTCGTATGTCTTCGATGCGCATGACGGAGAGGTCAACGCAGTGCAGTTCAGTCCAGGCTCC
 CGTTGCTGGCCACTGGAGGCATGGACCGAGGTGAAACTTTGGGAAGCATTGGAGATAAATGTGAAT
 TCAAGGGCTCCCTGTCTGGCAGTAACTGCTGGAATTACAAGCATTGAATTTGATAGTCTGGAGCTTACT
 ATTAGCAGCTTCAAATGATTTTGAAGCCGAATCTGGACTGTGGATGATTATCGATTACGGCACACACTC
 ACAGGCCACAGCGGAAAGTCCCTCTGCAAGTTCTGCTGGACAATGCACGGATTGTCTCAGGAAGTC
 ACGACCGGACCCTCAAACCTGCGGATCTCCGACGAAAAGTCTGCATAAAAAACAGTGTTCAGGATCCAG
 CTGCAATGACATTGTTGCACTGAACAATGTGTAATGAGTGGACATTTTGACAAGAAAATTCGTTTCTGG
 GATATCCGGTCAGAGAGTGTGGTCCGAGAGATGGAAGTGTAGGGAAGATCACTGCTCTGGACCTAAACC
 CTGAGAGAACTGAGCTCCTGAGCTGCTCCCGTATGACCTGCTAAAAGTCATCGACCTCCGGACAAATGC
 AGTCAAACAGACATTAGTGCCTGGATTCAAATGCGGCTCTGACTGGACCCGGTGTCTTCAGCCCT
 GATGGCAGTTACGTGGCAGCAGGCTCAGCCGAGGTTCTTTATGTCTGGAGTGTCTGACAGGGAAG
 TGGAGAAGTTCTTTCAAACAGCACAGCTCTTCTATCAATGCGGTGGCTGGGCCCCCTCGGGCTTACA
 GTTTGTCAGTGTGACAAGGAAGCAGAGCTGTGCTGTGGGCACAGCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG209513 representing BC049122
 Red=Cloning site Green=Tags(s)

MSSGLRAADFPRWKRHIAEELRRRDLRQQAFFEEIILQYTKLLEKSDLHSVLTQKLQAEKHDMPNRHEIS
 PGHDGAWNDSQLQEMAQLRIKHQEELTELHKKRGELAQLVIDLNNMQQKDKIEIQMNEAKISEYLQTISSD
 LETNCLDLRKLQDLEVANQTLKDEYDALQITFTALEEKLRKTTEENQELVTRWMAEKAQEANRLNAENE
 KDSRRRQARLQKELAEAAKEPLPVEQDDIEVIVDETSDHTEETSPVRAVSRAATKRLSQPAGLLDSIT
 NIFGLSESPLLGHHSSDAARRRSVSSIPVPODIMDTHPASGKDVVPVTTASVVFDAHDGEVNAVQFSPGS
 RLLATGGMDRRVKLWEAFGDKCEFSGSLSGSNAGITSIEFDSAGAYLLAASNDFASRIWTVDDYRLRHTL
 TGHSGKVLSAKFLLDNARIYVSGSHDRTLKLDLRSKVICIKTVFAGSSCNDIVCTEQCVMSGHFDKKIRFW
 DIRSESVVREMELLGKITALDLNPERTELLSCSRDCLKVIDLRNAVKTFSAPGFKCGSDWTRVVFSP
 DGSVYAAGSAEGSLYVSVLTGKVEKVLKQHSINAVAWAPSGLHVSVDKGSRAVLWAQP

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-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

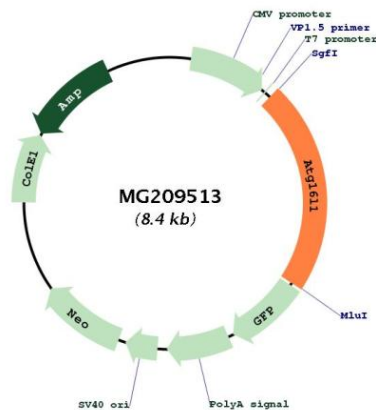
RefSeq ORF: 1871 bp

Locus ID: 77040

Cytogenetics: 1 D

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 MG209513