

Product datasheet for **MR230716**

Atg16l1 (NM_001205391) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atg16l1 (NM_001205391) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Atg16l1
Synonyms:	1500009K01Rik; Apg16l; Atg16l; WDR30
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR230716 representing NM_001205391
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGTCGGCCTGCGCGCCGAGACTTCCCGCTGGAAGCGTCACATCGCGGAGGAAGTCTGAGCGCC
 GGGACCGACTGCAGAGGCAGGCGTTCGAGGAGATCATTCTGCAGTATACCAAGTTGCTGGAAAAGTCAGA
 TCTTCATTCAAGTATTGACCCAGAAAACAAGCAGAAAAGCATGACATGCCAAATAGGCATGAAATAAGT
 CCTGGACATGATGGTGCCTGGAATGATAGTCAACTACAAGAAATGGCCAGTTGAGGATCAAACACCAGG
 AAGAGCTGACCGAACTGCACAAGAAGCGTGGGAGTTAGCTCAGTTGGTATTGACCTGAACAACCAAT
 GCAGCAGAAGGACAAGGAGATACAGATGAATGAAGCAAAGATTCGGAGTATTTACAGACCATCTCTGAC
 CTGGAGACAACTGCCTGGACCTGCGCACCAACTGCAGGACCTCGAGGTAGCCAACCAGACCCTGAAGG
 ATGAGTATGACGCCCTGCAGATTACTTTACTGCCCTAGAAGAGAAACTGAGGAAAAGTACTGAGGAGAA
 CCAGGAAGTGGTACCAGATGGATGGCTGAGAAGGCCAAGAAGCCAATCGCCTCAATGCAGAGAATGAG
 AAGGACTCCAGGAGCGTCAAGCACGGCTGCAGAAGGAGCTTGCAGAAGCAGCAAAGGAACCTCTACCTG
 TTGAACAGGATGATGACATTGAAGTCATTGTGGATGAGACCTCAGACCACACAGAAGAGACCTCTCCCGT
 CCGAGCTGTCAGCAGAGCAGCTACTAAGCGACTCTCGCAGCCTGCTGGAGGCCTTCTGGATTCTATCACT
 AATATCTTTGGTCTGTCCGAATCTCCCTTTGGGACATCATTCTTCTGTGCTGCCAGGAGACGCTCTG
 TCTCTCCATCCCAGTCCCCAGGATATCATGGACACTCATCTGCTTCTGGTAAAGATGTGAGAGTCCC
 AACTACTGCCTCGTATGTCTTCGATGCGCATGACGGAGAGGTCAACGCAGTGCAGTTCAGTCCAGGCTCC
 CGTTGCTGGCCACTGGAGGCATGGACCGCAGGTTGAAACTTTGGGAAGCATTGGAGATAAATGTGAAT
 TCAAGGCTCCCTGTCTGGCAGTAAATGCTGGAATTACAAGCATTGAATTTGATAGTCTGGAGCTTAACT
 ATTAGCAGCTTCAAATGATTTTGAAGCCGAATCTGGACTGTGGATGATTATCGATTACGGCACACACTC
 ACAGGCCACAGCGGAAAGTCCCTCTGCAAGTTCTGCTGGACAATGCACGGATTGTCTCAGGAAGTC
 ACGACCGGACCCTCAAACCTGCGGATCTCCGACGAAAAGTCTGCATAAAAAACAGTGTTCGAGGATCCAG
 CTGCAATGACATTGTTGCACTGAACAATGTGTAATGAGTGGACATTTTGACAAGAAAATTCGTTTCTGG
 GATATCCGGTCAAGAGTGTGGTCCGAGAGATGGAAGTGTAGGGAAGATCACTGCTCTGGACCTAAACC
 CTGAGAGAACTGAGCTCCTGAGCTGCTCCCGTATGACCTGCTAAAAGTCATCGACCTCCGGACAAATGC
 AGTCAAACAGACATTCAGTGCCTGGATTCAAATGCGGCTCTGACTGGACCCGGTTGTCTTCAGCCCT
 GATGGCAGTTACGTGGCAGCAGGCTCAGCCGAGGTTCTTTATGTCTGGAGTGTCTGACAGGAAAAG
 TGGAGAAGGTTCTTTCAAACAGCACAGCTCTTCTATCAATGCGGTGGCTGGGCCCCCTCGGGCTTACA
 GTTTGTCAGTGTGACAAGGAAGCAGAGCTGTGCTGTGGGCACAGCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230716 representing NM_001205391
 Red=Cloning site Green=Tags(s)

MSSGLRAADFPRWKRHIAEELRRRDLRQRQAFEEIILQYTKLLEKSDLHSVLTQKLQAEKHDMPNRHEIS
 PGHDGAWNDSQLQEMAQLRIKHQEELTELHKKRGELAQLVIDLNNQMQQKDKIEIQMNEAKISEYLQTI
 SDLETNCLDLRKLQDLEVANQTLKDEYDALQITFTALEEKLKRTTEENQELVTRWMAEKAQEANRLNAENE
 KDSRRRQARLQKELAEAAKEPLPVEQDDIEVI VDETSDHTEETSPVRAVSRAATKRLSQPAGLLDSIT
 NIFGLSESPLLGHHSSDAARRRSVSSIPVPQDIMDTHPASGKDVRVPTTASYVFD AHDGEVNAVQFSPGS
 RLLATGMDRRVKLWEAFGDKCEFKGSLSGSNAGITSIIEFDSAGAYLLAASNDFASRIWTVDDYRLRHTL
 TGHSGKVL SAKFLLDNARIVSGSHDRTLKLDLRSKVCIKTVFAGSSCNDIVCTEQCVMSGHFDKIRFW
 DIRSESVVREMELLGKITALDLNPERTELLSCSRDCLKVIDLRTNAVKQTF SAGPFGKCGSDWTRVVFSP
 DGSVYAAGSAEGLYVWVSVLTGKVEKVL SKQHSSSINAVAWAPSGLHVVSVDKGSRAVLWAQP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001205391

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: [NM_001205391.1](#), [NP_001192320.1](#)

RefSeq Size: 3197 bp

RefSeq ORF: 1872 bp

Locus ID: 77040

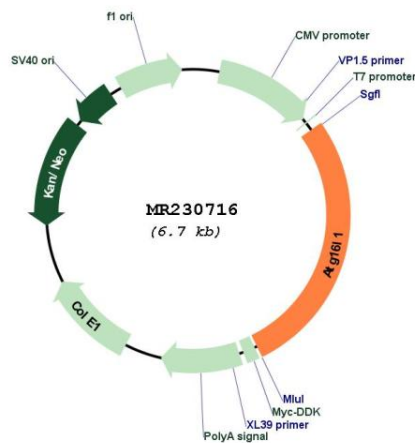
UniProt ID: [Q8C0J2](#)

Cytogenetics: 1 D

MW: 69.8 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 MR230716