

Product datasheet for **RC220325**

ATG14L (ATG14) (NM_014924) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATG14L (ATG14) (NM_014924) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATG14L
Synonyms:	ATG14L; BARKOR; KIAA0831
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC220325 representing NM_014924
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGTCTCCAGTGGGAAGGGAGCCCGGGCGTGGAGGCTCCTGGCTGCGGGCCCGGCCGCTCGCCC
 GGGACCTGGTGGACTCCGTGGACGATGCGGAGGGGCTGTACGTGGCTGTGGAGCGCTGCCGCTGTGCAA
 CACTACCCGCGCGCGCTGACCTGCGCCAAATGCGTTCAGAGCGCGGATTCGTCTACTTCGACGGCCGC
 GACCGGGAGAGGTTTATCGACAAGAAGGAAAGTTAAGCCGACTTAAGAGCAAGCAAGAAGAATTCAGA
 AAGAAGTGTAAAAGCTATGGAAGGAAAATGGATAACAGATCAGTTGAGATGGAAAATAATGCTCGCAA
 GATGAGGATTGAACAGTAAAACAACAATATGTAAGGAAAATGAAGAAAATGGAGAAAAATCTGAAGGC
 CTTCTCAAACCAAGGAAAAGAATCAGAAGCTTACAGTCGAGCACAACGGCACCAAGAGAAAAAGGAGA
 AGATTCAGAGGCATAATCGAACTTGGTGACCTGGTAGAAAAAAGACCATTGACTTAAGAAGTCATTA
 TGAGCGTCTGGCAAATCTTCGACGATCCCATATATTAGAGCTCACCTCTGTCATTTTTCCAATCGAGGAA
 GTAAGAGCGGGTGTGAGAGACCCCGAGATGTGTCTTCAGAGAGTGACAGTGCCATGACCTCCAGCAGCTG
 TGAGCAAGCTTGCTGAAGCCCGGAGGACAACCTACCTCTCAGGACGATGGGTCTGTGACGATCACACGG
 AGACACCAGCATTAGCATTACAGGGCCTTGATTAGCCTCCCTAACAAATGGGGACTACTCTGCCTACTAC
 AGCTGGGTGGAGGAGAAGAAAACAACCCAGGGGCTGACATGGAGCAGAGTAACCCTGCCTACACCATCA
 GTGCTGCGCTGTGCTATGCAACTCAGCTGGTCAACATTCTGTCTCATATACTTGATGTAATCTTCCCAA
 AAAGCTCTGCAACAGTGAATTTGTGGCGAAAATCTAAGCAAGCAGAAAATTTACTCGAGCAGTGAAGAAA
 CTGAATGCAAAATATTCTTACCTTTGTTTTCTCAGCATGTAATTTAGATCAATTACAACCACTGCATA
 CCCTCAGGAATCTAATGTACCTGGTCAGTCAAGCTCTGAACACCTAGGCAGGTCAGGGCCCTTTGAAGT
 ACGAGCAGACCTTGAGGAGTCCATGGAATTTGTGGATCCCGGAGTTGCTGGAGAATCAGATGAGAGCGGA
 GATGAGCGGTCAGCGATGAAGAAACCGACCTGGGCACAGACTGGGAGAATTGCCTAGTCCCGGTTTTT
 GTGATATCCCTTCCAGTCTGTGGAAGTCTCCAGAGTCAGAGCACCCAGGCGTCCCAACCATCGCGAG
 CAGCAGTGCAGGTGGGATGATCTCCTCTGCAGCAGCCTCGGTGACCTCCTGGTTAAAGCTTACACTGGA
 CACCGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220325 representing NM_014924
 Red=Cloning site Green=Tags(s)

MASPSGKARALEAPGCGPRPLARDLVDSVDDAEGLYVAVERCPLCNTTRRRRLTCAKCVQSGDFVYFDGR
 DRERFIDKKERLSRLKSKQEEFQKEVLKAMEGKWITDQLRWKIMSCKMRIEQLKQTIKGNEMEKNSEG
 LLKTKENQKLYSRAQRHQEKKEKIQRHNRKLGDLVEKKTIDLRSHYERLANLRRSHILELTSVIFPIEE
 VKTGVRDPADVSSSDSAMSSTVSKLAEARRTYLSGRWVCDDHNGDTSISITGPWISLPNNGDYSAAY
 SWVEEKTTQGPDMESNPAYTISAALCYATQLVNILSHILDVNLPKKLCNSEFCGENLSKQKFTRAVKK
 LNANILYL CFSQHVNLDQLPLHLRNLMYL VSPSSEHLGRSGPFVVRADLEESMEFVDPGVAGESDESG
 DERVSDEETDLGTDWENLPSRPFCDIPSQSVEVSQSSTQASPPAIASSSAGGMISAAASVTSWFKAYTG
 HR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_014924

ORF Size: 1476 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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).

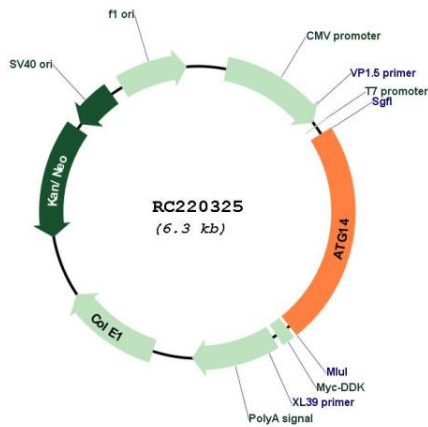
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_014924.5](#)

RefSeq Size: 4742 bp
 RefSeq ORF: 1479 bp
 Locus ID: 22863
 UniProt ID: [Q6ZNE5](#)
 Cytogenetics: 14q22.3
 MW: 55.1 kDa

Gene Summary: Required for both basal and inducible autophagy. Determines the localization of the autophagy-specific PI3-kinase complex PI3KC3-C1 (PubMed:18843052, PubMed:19050071). Plays a role in autophagosome formation and MAP1LC3/LC3 conjugation to phosphatidylethanolamine (PubMed:19270696, PubMed:20713597). Promotes BECN1 translocation from the trans-Golgi network to autophagosomes (PubMed:20713597). Enhances PIK3C3 activity in a BECN1-dependent manner. Essential for the autophagy-dependent phosphorylation of BECN1 (PubMed:23878393). Stimulates the phosphorylation of BECN1, but suppresses the phosphorylation PIK3C3 by AMPK (PubMed:23878393). Binds to STX17-SNAP29 binary t-SNARE complex on autophagosomes and primes it for VAMP8 interaction to promote autophagosome-endolysosome fusion (PubMed:25686604). Modulates the hepatic lipid metabolism (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC220325