

## Product datasheet for **RG220325**

### **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:	TurboGFP
Symbol:	ATG14L
Synonyms:	ATG14L; BARKOR; KIAA0831
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG220325 representing NM\_014924  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGTCTCCAGTGGGAAGGGAGCCCGGGCGCTGGAGGCTCCTGGCTGCGGGCCCGGCCGCTCGCCC  
 GGGACCTGGTGGACTCCGTGGACGATGCGGAGGGGCTGTACGTGGCTGTGGAGCGCTGCCGCTGTGCAA  
 CACTACCCGCGCGCGCTGACCTGCGCCAAATGCGTTCAGAGCGCGATTTCGTCTACTTCGACGCGCCG  
 GACCGGGAGAGGTTTATCGACAAGAAGGAAAGTTAAGCCGACTTAAGAGCAAGCAAGAAGAATTCAGA  
 AAGAAGTGTAAAAGCTATGGAAGGAAAATGGATAACAGATCAGTTGAGATGGAAAATAATGTCCTGCAA  
 GATGAGGATTGAACAGTAAAACAACAATATGTAAGGAAAATGAAGAAATGGAGAAAAATTCGAAGGC  
 CTTCTCAAACCAAGGAAAAGAATCAGAAGCTTTACAGTCGAGCACAACGGCACCAAGAGAAAAAGGAGA  
 AGATTCAGAGGCATAATCGAAACTTGGTGACCTGGTAGAAAAAAGACCATTGACTTAAGAAGTCATTA  
 TGAGCGTCTGGCAAATCTTCGACGATCCCATATATTAGAGCTCACCTCTGTCATTTTTCCAATCGAGGAA  
 GTAAGAGCGGGTGTGAGAGACCCCGCAGATGTGTCTTCAGAGAGTGACAGTGCCATGACCTCCAGCACTG  
 TGAGCAAGCTTGCTGAAGCCCGGAGGACAACCTACCTCTCAGGACGATGGGTCTGTGACGATCACACGG  
 AGACACCAGCATTAGCATTACAGGGCCTTGATTAGCCTCCCTAACAAATGGGGACTACTCTGCCTACTAC  
 AGCTGGGTGGAGGAGAAGAAAACAACCCAGGGGCTGACATGGAGCAGAGTAACCCTGCCTACACCATCA  
 GTGCTGCGCTGTGCTATGCAACTCAGCTGGTCAACATTCTGTCTCATATACTTGATGTAATCTTCCCAA  
 AAAGCTCTGCAACAGTGAATTTGTGGCGAAAATCTAAGCAAGCAGAAATTTACTCGAGCAGTGAAGAAA  
 CTGAATGCAAAATATTCTTTACCTTTGTTTTCTCAGCATGTAATTTAGATCAATTACAACCACTGCATA  
 CCCTCAGGAATCTAATGTACCTGGTCAGTCAAGCTCTGAACACCTAGGCAGGTCAGGGCCCTTTGAAGT  
 ACGAGCAGACCTTGAGGAGTCCATGGAATTTGTGGATCCCGGAGTTGCTGGAGAATCAGATGAGAGCGGA  
 GATGAGCGGTCAGCGATGAAGAAACCGACCTGGGCACAGACTGGGAGAATTGCCTAGTCCCGGTTTTT  
 GTGATATCCCTTCCAGTCTGTGGAAGTCTCCAGAGTCAGAGCACCCAGGCGTCCCAACCATCGCGAG  
 CAGCAGTGCAGGTGGGATGATCTCCTCTGCAGCAGCCTCGGTGACCTCCTGGTTAAAGCTTACACTGGA  
 CACCGT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG220325 representing NM\_014924  
 Red=Cloning site Green=Tags(s)

MASPSGKGARALEAPGCGPRPLARDLVDSVDDAEGLYVAVERCPLCNTTRRRLTCAKCVQSGDFVYFDGR  
 DRERFIDKKERLSRLKSKQEEFQKEVLKAMEGKWI TDQLRWKIMSCKMRIEQLKQTI CKGNEEMKNSG  
 LLKTKEKNQKLYSRAQRHQEKKEKIQRHNRKLGDLVEKKTIDLRSHYERLANLRRSHILELTSVIFPIEE  
 VKTGVRDPADVSESAMTSSTVSKLAEARRTYL SGRWVCDDHNGDTSISITGPWISLPNNGDYSAAY  
 SWVEEKTTQGPDMESNPAYTISAALCYATQLVNILSHILDVNLPKKLCNSEFCGENLSKQKFTRAVKK  
 LNANILYL CFSQHVNL DQLQPLHLRNL MYLVSPSSEHLGRSGPFVVRADLEESMEFVDPGVAGESDESG  
 DERVSDEETDLGTDWENLPSPRFCDIPSQSVEVSQSSTQASPIASSSAGGMISAAAASVTSWFKAYTG  
 HR

**TRTRPLE** – GFP Tag – V

**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](mailto: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:**

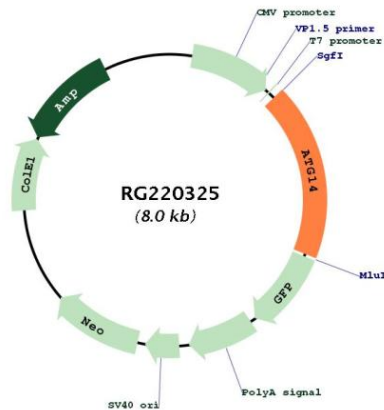
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store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

**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 RG220325