

## Product datasheet for **RC235557**

### ATG5 (NM\_001286111) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** ATG5 (NM\_001286111) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** ATG5  
**Synonyms:** APG5; APG5-LIKE; APG5L; ASP; hAPG5; SCAR25  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC235557 representing NM\_001286111  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACAGATGACAAAGATGTGCTTCGAGATGTGTGGTTTGGACGAATTCCAATTGTTTCACGCTATATC  
AGGATGAGATAACTGAAAGGGAAGCAGAACCATACTATACAGATTTGACCAGTTTGGGCCATCAATCGG  
AAACTCATGGAATATCCTGCAGAAGAAAATGGATTTTCGTATATCCCCTTTAGAATATATCAGACAACGA  
CTGAAAGACCTTTCATTCAGAAGCTGTTTCGTCCTGTGGCTGCAGATGGACAGTTGCACACAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC235557 representing NM\_001286111  
Red=Cloning site Green=Tags(s)  
MTDDKDVLRDVFGRIPTCFTLYQDEITEREAEPYYTDLTSFGPSIGNSWNILQKKMDFVISPLEYIRQR  
LKDLSFRSCFVLWLQMDSCTH

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_001286111

**ORF Size:** 273 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.

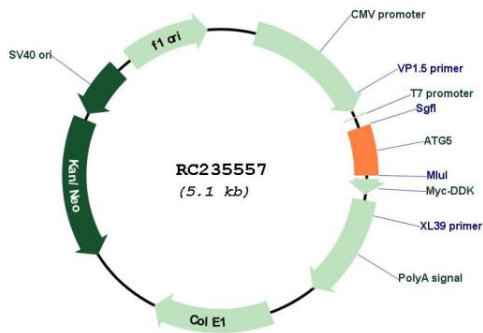
**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001286111.1](#), [NP\\_001273040.1](#)

**RefSeq Size:** 2890 bp  
**RefSeq ORF:** 276 bp  
**Locus ID:** 9474  
**UniProt ID:** [Q9H1Y0](#)  
**Cytogenetics:** 6q21  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Regulation of autophagy, RIG-I-like receptor signaling pathway  
**MW:** 11.3 kDa

**Gene Summary:** The protein encoded by this gene, in combination with autophagy protein 12, functions as an E1-like activating enzyme in a ubiquitin-like conjugating system. The encoded protein is involved in several cellular processes, including autophagic vesicle formation, mitochondrial quality control after oxidative damage, negative regulation of the innate antiviral immune response, lymphocyte development and proliferation, MHC II antigen presentation, adipocyte differentiation, and apoptosis. Several transcript variants encoding different protein isoforms have been found for this gene. [provided by RefSeq, Sep 2015]

### Product images:



Circular map for RC235557