

Product datasheet for **RC237090**

ATG5 (NM_001286106) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATG5 (NM_001286106) 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:	>RC237090 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACAGATGACAAAGATGTGCTTCGAGATGTGTGGTTTGGACGAATCCAACCTGTTTCACGCTATATC
AGGATGAGATAACTGAAAGGGAAGCAGAACCATACTATTTGCTTTTGCCAAGAGTAAGTTATTTGACGTT
GGTAACTGACAAAGTAAAAAGCACTTTCAGAAGGTTATGAGACAAGAAGACATTAGTGAGATATGGTTT
GAATATGAAGGCACACCACTGAAATGGCATTATCCAATTGGTTTGCTATTTGATCTTCTGCATCAAGTT
CAGCTCTTCCTTGAACATCACAGTACATTTTAAGAGTTTTCCAGAAAAAGACCTTCTGCACTGTCCATC
TAAGGATGCAATTGAAGCTCATTTTATGTCATGTATGAAAGAAGCTGATGCTTTAAAACATAAAAGTCAA
GTAATCAATGAAATGCAGAAAAAGATCACAAGCAACTCTGGATGGGATTGCAAAATGACAGATTTGACC
AGTTTTGGCCATCAATCGGAACTCATGGAATATCCTGCAGAAGAAAATGGATTTTCGTTATATCCCTT
TAGAATATATCAGACAACGACTGAAAGACCTTTCATTGAGAAGCTGTTTCGTCCTGTGGCTGCAGATGGA
CAGTTGCACACTAGGAGATCTCTCAAAGAAGTTTGTCTTCTGCTATTGATCCTGAAGATGGGGAAA
AAAAGAATCAAGTGATGATTCATGGAATTGAGCCAATGTTGGAACACCTCTGCAGTGGCTGAGTGAACA
TCTGAGCTACCCGATAATTTTCTCATATTAGTATCATCCCACAGCCAACAGAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC237090 protein sequence
Red=Cloning site Green=Tags(s)

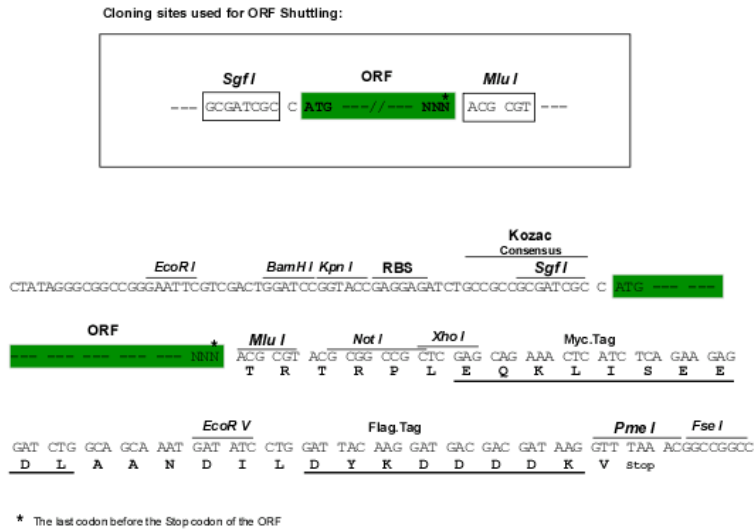
MTDDKDVLRDVFGRIPCTFLYQDEITEREAEPYLLLPVSYLTLVTDKVKKHFQKVMRQEDISEIWF
 EYEGTPLKWHYPIGLLFDLLASSALPWNITVHFKSFPEKDLLHCPKDAIEAHFMSCMKADALKHKSQ
 VINEMQKKDHKQLWMGLQDRFDQFWAINRKLMEYPAEENGFYIPFRIYQTTTERPFIQKLFPRVAADG
 QLHTLGDLLKEVCPAIDPEDGEKKNQVMIHGIEPMLETPLQWLSEHLSYDPDNFLHISIIIPQPTD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6004_e07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001286106

ORF Size: 825 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_001286106.1](#), [NP_001273035.1](#)

RefSeq Size: 3125 bp

RefSeq ORF: 828 bp

Locus ID: 9474

UniProt ID: [Q9H1Y0](#)

Cytogenetics: 6q21

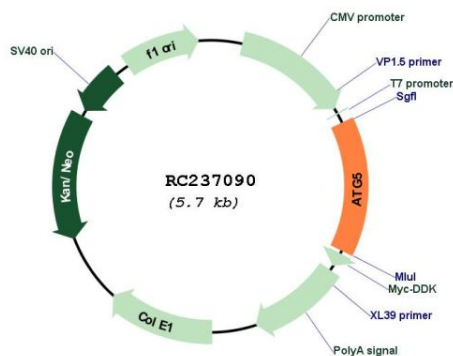
Protein Families: Druggable Genome

Protein Pathways: Regulation of autophagy, RIG-I-like receptor signaling pathway

MW: 32.4 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 RC237090