

## Product datasheet for **RG237090**

### ATG5 (NM\_001286106) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ATG5 (NM_001286106) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ATG5
Synonyms:	APG5; APG5-LIKE; APG5L; ASP; hAPG5; SCAR25
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG237090 representing NM_001286106. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGACAGATGACAAAGATGTGCTTCGAGATGTGTGGTTTGGACGAATCCAATTGTTTCACGCTATAT
CAGGATGAGATAACTGAAAGGGAAGCAGAACCATACTATTTGCTTTTGCCAAGAGTAAGTTATTTGACG
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GCAGATGGACAGTTGCACACACTAGGAGATCTCCTCAAAGAAGTTTGTCTTCTGCTATTGATCCTGAA
GATGGGAAAAAAGAATCAAGTGATGATTCATGGAATTGAGCCAATGTTGGAACACCTCTGCAGTGG
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



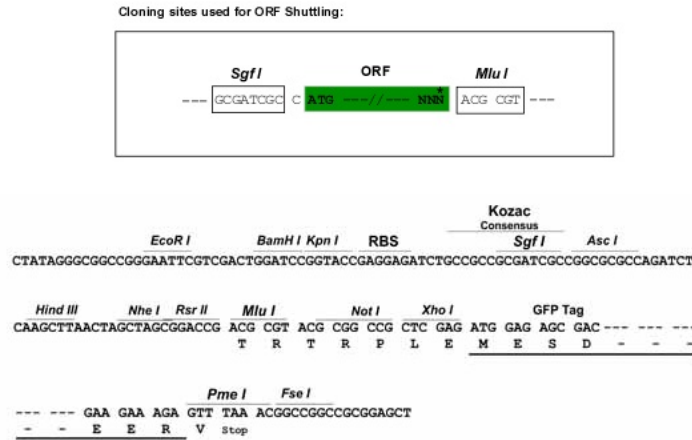
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**Protein Sequence:** >Peptide sequence encoded by RG237090  
 Blue=ORF Red=Cloning site Green=Tag(s)

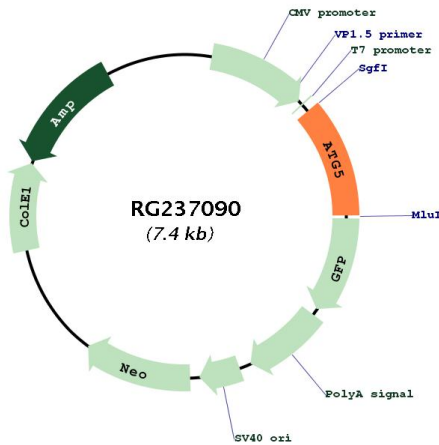
MTDDKDLVLRDVFGRIPCTFLYQDEITEREAEPYLLLPVSYLTLVTDKVKKHFQKVMRQEDISEIW  
 FEYEGTPLKWHYPIGLLFDLLASSALPWNITVHFKSFPEKDLLHCPKDAIEAHFMSCMKEADLKHK  
 SQVINEMQKDKHKQLWMGLQDRFDQFWAINRKLMEYPAEENGFRIYIPFRYIYQTTTERPFIQKLF  
 PVAADGQLHTLGDLLKEVCPSAIDPEDGEKKNQVMIHGIEMLETPLQWLSEHLSPDNFLHISII  
 PQPTD **TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV**  
 MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTG  
 FPEDSVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001286106

<b>ORF Size:</b>	825 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NM_001286106.1</a> , <a href="#">NP_001273035.1</a>
<b>RefSeq Size:</b>	3125 bp
<b>RefSeq ORF:</b>	828 bp
<b>Locus ID:</b>	9474
<b>UniProt ID:</b>	<a href="#">Q9H1Y0</a>
<b>Cytogenetics:</b>	6q21
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Regulation of autophagy, RIG-I-like receptor signaling pathway
<b>MW:</b>	32.4 kDa
<b>Gene Summary:</b>	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]