

Product datasheet for **RG236615**

ATG5 (NM_001286108) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATG5 (NM_001286108) 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:	>RG236615 representing NM_001286108. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGACAGATGACAAAGATGTGCTTCGAGATGTGTGGTTTGGACGAATCCAATTGTTTCACGCTATAT
CAGGATGAGATAACTGAAAGGGAAGCAGAACCATACTATTTGCTTTTGCCAAGAGTAAGTTATTTGACG
TTGGTAACTGACAAAGTAAAAAGCACTTTCAGAAGGTTATGAGACAAGAAGACATTAGTGAGATATGG
TTTGAATATGAAGGCACACCACTGAAATGGCATTATCCAATTGGTTTGCTATTTGATCTTCTGCATCA
AGTTCAGCTCTTCCTTGAACATCACAGTACATTTTAAGAGTTTCCAGAAAAAGACCTTCTGCACTGT
CCATCTAAGGATGCAATTGAAGCTATTTATGTCATGTATGAAAGAAGCTGATGCTTTAAACATAAA
AGTCAAGTAATCAATGAAATGCAGAAAAAGATCAAGCAACTCTGGATGGGATTGCAAAATGATTTG
ACCAGTTTTGGCCATCAATCGGAACTCATGGAATATCCTGCAGAAGAAATGGATTTCTGTTATATCC
CCTTTAGAATATATCAGACAACGACTGAAAGACCTTTCATTTCAGAAGCTGTTTCGTCTGTGGCTGCAG
ATGGACAGTTGCACACAC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG236615
 Blue=ORF Red=Cloning site Green=Tag(s)

MTDDKDVLRDVFGRIPTCFTLYQDEITEREAEPYLLLPVSYLTLVTDKVKKHFQKVMRQEDISEIW
 FEYEGTLPKWHYPIGLLFDLLASSALPWNITVHFKSFPEKDLLHCPKDAIEAHFMSCKMEADALKHK
 SQVINEMQKKDKHQLWMGLQNDLTSFGPSIGNSWNILQKKMDFVISPLEYIRQLKDLFRSCFVLWLQ
 MDSCTH

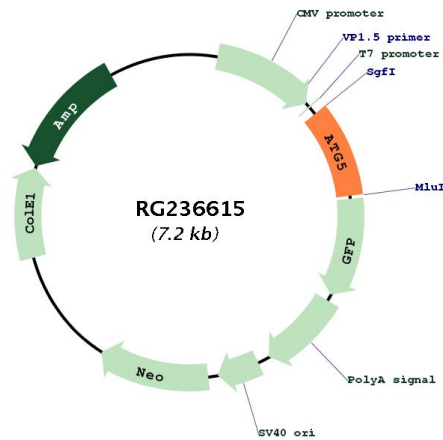
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNAVHLPMDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001286108

ORF Size:	639 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).
RefSeq:	NM_001286108.1 , NP_001273037.1
RefSeq Size:	3256 bp
RefSeq ORF:	642 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:	25.7 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]