

Product datasheet for **RG218030**

ATG4A (NM_052936) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATG4A (NM_052936) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ATG4A
Synonyms:	APG4A; AUTL2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218030 representing NM_052936 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGTCAGTTTTATCCAAGTATGAAGATCAGATTACTATTTTCACTGACTACCTAGAAGAATATCCAG
ATACAGATGAGCTGGTATGGATCTTAGGGAAGCAGCATCTCCTTAAAACAGAAAAATCTAAGCTGTTGTC
TGATATAAGTGCTCGTCTATGGTTACATACAGAAGGAAATTTTACCAATTGGTGAACGGGCCCTTCA
TCAGATGCTGGTGGGGATGTATGCTACGCTGTGGACAGATGATGCTGGCTCAAGCCCTTATCTGTAGAC
ACTTGGGAAGGGACTGGAGCTGGGAGAAACAAAAGAACAACCCAAAGAATACCAACGCATCCTACAGTG
CTTCTTAGATAGAAAAGATTGTTGCTACTCTATCCATCAAATGGCACAAATGGGTGATAGGAGAAGGGAAA
TCAATTGGAGAATGGTTTGGACCAATACAGTTGCACAGGTGTTAAAAAACTTGCTTTATTTGACGAAT
GGAATTCCTTGGCTGTTTATGTTTCAATGGATAACACAGTGGTCATTGAAGATATCAAAAAATGTGCCG
TGTCTTCCCTTGGTGTGCTGACACAGCTGGTGACAGGCCCTCCCGATTCTTAACTGCTTCAAACCAGAGT
AAGGGCACCTCTGCCTACTGCTCAGCCTGGAAACCCCTGCTGCTCATTGTGCCCTTGCCTGGGCATAA
ACCAATCAATCCTGTCTATGTTGATGCATTCAAAGAGTGTTTAAGATGCCACAGTCTTTAGGGGCATT
AGGAGGAAAACCAATAACCGTATTATTTTATAGGATTCTTAGGTGACGAGTCTCTTCTTGGACCT
CATACAACCCAGACCTTTGTTGACACTGAAGAGAATGGAACGGTTAATGACCAGACTTTCCATTGCCTGC
AGTCCCCACAGCGAATGAACATCCTAAACCTGGATCCTTTCAGTTGATTGGGATTTTCTGCAAAGAAGA
AAAAGACTTTGATAACTGGTGTAGCCTTGTTCAGAAGGAAATTCTAAAGGAGAATTTAAGGATGTTTGAA
TTAGTTGAGAAACATCCATCACACTGGCCTCCCTTTGTACCTCCAGCCAAGCCAGAAGTGACAACCACTG
GGGCAGAATTCATTGACTCTACTGAGCAACTGGAGGAGTTTGTCTGGAGGAAGATTTTGTAGATTCTGAG
TGTG

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG218030 representing NM_052936
 Red=Cloning site Green=Tags(s)

MESVLSKYEDQITIFTDYLEEYPTDELVWILGKQHLLKTEKSKLLSDISARLWFTYRRKFSPIGGTGPS
 SDAGWGCMRLRCQMMLAQUALICRHLGRDWSWEKQKEQPKEYQRILQCFLDRKDCCYSIHQMAQMGVGEK
 SIGEWFGPNTVAQVLKLLALFDEWNSLAVVYVMDNTVVIEDIKKMCRLPLSADTAGDRPPDSLASNQS
 KGTSAYCSAWKPLLLIVPLRLGINQINPVYVDAFKCECFKMPQSLGALGGKPNNAYYFIGFLGDELIFLDP
 HTTQTFVDTEENGTVNDQTFHCLQSPQRMNILNLDPSVALGFFCKEEKDFDNWCSLVQKEILKENLRMFE
 LVQKHPSHWPPFVPPAKPEVTTTGAEIFIDSTEQLLEEFDLEEDFEILSV

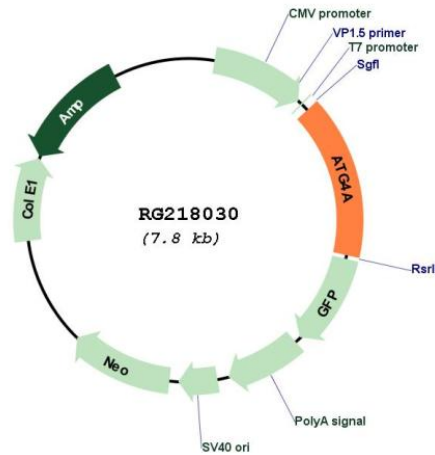
SGPTRRRLE - GFP Tag - V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: NM_052936

ORF Size:	1194 bp
OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_052936.5
RefSeq Size:	2303 bp
RefSeq ORF:	1197 bp
Locus ID:	115201
UniProt ID:	Q8WYN0
Cytogenetics:	Xq22.3
Domains:	Peptidase_C54
Protein Families:	Protease
Protein Pathways:	Regulation of autophagy

Gene Summary:

Autophagy is the process by which endogenous proteins and damaged organelles are destroyed intracellularly. Autophagy is postulated to be essential for cell homeostasis and cell remodeling during differentiation, metamorphosis, non-apoptotic cell death, and aging. Reduced levels of autophagy have been described in some malignant tumors, and a role for autophagy in controlling the unregulated cell growth linked to cancer has been proposed. This gene encodes a member of the autophagin protein family. The encoded protein is also designated as a member of the C-54 family of cysteine proteases. [provided by RefSeq, Mar 2016]