

Product datasheet for **MG223616**

Atg4c (NM_175029) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atg4c (NM_175029) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Atg4c
Synonyms:	Apg4-C; Apg4c; Atg4cl; Autl1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG223616 representing NM_175029
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGGCTTCAGGAACAGATGAAGTTGACAAGCTAAAACTAAATTTATATCTGCTTGGACAATATGA
 AATATAGTTGGGTGTTGAAAACAAAGACATATTTTAGTAGAAATTCACCTGTTTTATTGCTTGGAAAATG
 TTATCATTTTTAAATATGAAGATGAAAGCAAGATGTTGCCTGCAAGATCAGGATGTGCCATTGAAGATCAT
 GTAATTGCAGGGAATGTGGAAGAGTTCGGTAAGGATTTTCTTTCTAGATTATGGCTGACCTACAGGGAAG
 AATTTCTCAAATCGAAGCTTCAGCCTTGACGACAGACTGTGGCTGGGGCTGCACGCTGCGGACCGGCCA
 GATGCTGCTGGCTCAGGGACTCACTCCATTTTCTCGGTAGAGCTTGGACCTGGCCTGATGCGCTGCAC
 ATTGAGAACGCAGACTCTGACTCATGGACTTCCAACACTGTCAAAAAGTTTACTGCATCGTTTGAAGCTT
 CACTTTCCGGGGACAGAGAACTCAGAACTCCAGCAGTTTCTCTGAAGGAAACATCTGGGAAGTGTCCCGA
 TGACCACGCAGTCCGGAATGAGGCTTATCACAGGAAGATCATCTCTTGGTTTGGAGATCCCGCGTGGCC
 GTCTTTGGCTTACATCGTCTGATAGAGTTTGGGAAGAAGTCTGGGAAAAAAGCTGGCGATTGGTATGGAC
 CAGCGGTGGTTGCTCACATTTTAAAGAAAAGCAGTTGAAGAAGCAAGGCATCCGGATTTGCAAGGGCTAAC
 TATTTATGTTGCCAGGACTGTACAGTTTACAATTCTGACGTGATTGATAAGCAGACTGACTCCGTGACA
 GCTGGAGATGCACGTGACAAGGCTGTCAATTATTTAGTTCCTGTTAGACTCGGTGGAGAAAGGACCAATA
 CCGACTATCTGGAGTTTGTGAAGGTGTTTTAAGCCTTGAATACTGTGTAGGTATCATTGGCGGCAAACC
 TAAACAGTCATATTACTTTGCTGGATTTCAAGATGACAGTTTGAATTTACATGGATCCCTACTACTGCCAG
 TCTTTTGTAGATGTCAGCATAAAGGATTTCCCTCTCGAGACATCCACTGTCCATCTCTAAAAAGATGT
 CATTTCGAAAAATGGATCCTAGTTGTACGATAGGATTTTACTGTGAAAATGTCCAGGACTTTGAACGAGC
 GTCTGAAGAAAATCACTAAGATGTTGAAAATTTCCCTCTAAGGAGAAATATCCACTATTTACTTTTGTAAAT
 GGCCATTCAAAAGACTTTGATTTTACATCTACCGCAGCCAGTGAAGAAGACCTTTTCTCAGAAGATGAAA
 GGAAGAATTTCAAAGATTTAGCACAGAAGAGTTTGCCTCCTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG223616 representing NM_175029
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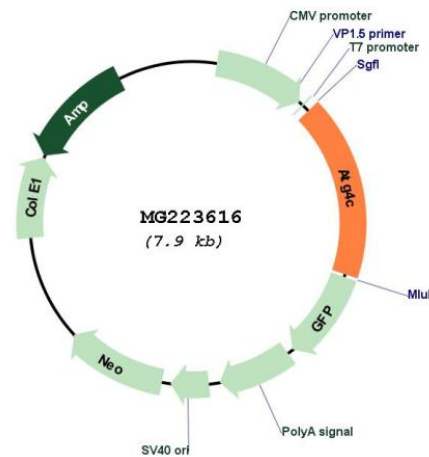
MEASGTDEVDKLTKEFISAWNMMKYSWVLKTKTYFSRNSPVLLLKGCYHFKYEDESKMLPARSGCAIEDH
 VIAGNVEEFRKDFISRLWLTYPREFFQIEASALTTDCGWGCTLRGTGQMLLAQGLILHFLGRAWTWPDALH
 IENADSDSWTSNTVKKFTASFEASLSGDRELRTPAVSLKETS GKCPDDHVRNEAYHRKIISWFGDSPA
 VFGLHRLIEFGKSGKKAGDWYGPVVAHILRKAVEEARHPDLQGLTIYVAQDCTVYNSDVIDKQTDSTV
 AGDARDKAVIILVPVRLGGERTNTDYLEFVKGVLSLEYCVGIIGGKPKQSYFFAGFQDDSLIYMDPHYCQ
 SFVDVSIKDFPLETFHCPSPKMSFRKMDPSCTIGFYCRNVQDFERASEEITKMLKISSKEYPLFTFVN
 GHSKDFDFTSTAASEEDLFSEDERKNFKRFSTEEFVLL

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_175029

ORF Size: 1374 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:	<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:	<u>NM_175029.2</u>
RefSeq Size:	3236 bp
RefSeq ORF:	1377 bp
Locus ID:	242557
UniProt ID:	<u>Q811C2</u>
Cytogenetics:	4 C6
Gene Summary:	Cysteine protease required for the cytoplasm to vacuole transport (Cvt) and autophagy. Cleaves the C-terminal amino acid of ATG8 family proteins MAP1LC3 and GABARAPL2, to reveal a C-terminal glycine. Exposure of the glycine at the C-terminus is essential for ATG8 proteins conjugation to phosphatidylethanolamine (PE) and insertion to membranes, which is necessary for autophagy. Has also an activity of delipidating enzyme for the PE-conjugated forms (By similarity). Is not essential for autophagy development under normal conditions but is required for a proper autophagic response under stressful conditions such as prolonged starvation.[UniProtKB/Swiss-Prot Function]