

Product datasheet for **MR223616**

Atg4c (NM_175029) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atg4c (NM_175029) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Atg4c
Synonyms:	Apg4-C; Apg4c; Atg4cl; Autl1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR223616 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGGCTTCAGGAACAGATGAAGTTGACAAGCTAAAACTAAATTTATATCTGCTTGGACAATATGA
 AATATAGTTGGGTGTTGAAAACAAAGACATATTTTAGTAGAAATTCACCTGTTTTATTGCTTGGAAAATG
 TTATCATTTTAAATATGAAGATGAAAGCAAGATGTTGCCTGCAAGATCAGGATGTGCCATTGAAGATCAT
 GTAATTGCAGGGAATGTGGAAGAGTTCGGTAAGGATTTTCTAGATTATGGCTGACCTACAGGGAAG
 AATTTCTCAAATCGAAGCTTCAGCCTTGACGACAGACTGTGGCTGGGGCTGCACGCTGCGGACCGGCCA
 GATGCTGTGGCTCAGGGACTCACTCCATTTTCTCGGTAGAGCTTGGACCTGGCTGATGCGCTGCAC
 ATTGAGAACGCAGACTCTGACTCATGGACTTCCAACACTGTCAAAAAGTTTACTGCATCGTTTGAAGCTT
 CACTTTCCGGGGACAGAGAACTCAGAACTCCAGCAGTTTCTCTGAAGGAAACATCTGGGAAGTGTCCCGA
 TGACCACGCAGTCCGGAATGAGGCTTATCACAGGAAGATCATCTCTTGGTTTGGAGATCCCCCGTGGCC
 GTCTTTGGCTTACATCGTCTGATAGAGTTTGGGAAGAAGTCTGGGAAAAAGCTGGCGATTGGTATGGAC
 CAGCGGTGGTTGCTCACATTTTAAAGAAAAGCAGTTGAAGAAGCAAGGCATCCGGATTTGCAAGGGCTAAC
 TATTTATGTTGCCAGGACTGTACAGTTTACAATTCTGACGTGATTGATAAGCAGACTGACTCCGTGACA
 GCTGGAGATGCACGTGACAAGGCTGTCAATATTTAGTTCCTGTTAGACTCGGTGGAGAAAGGACCAATA
 CCGACTATCTGGAGTTTGTGAAGGTTTAAAGCCTTGAATACTGTGTAGGTATCATTGGCGGCAAAACC
 TAAACAGTCATATTACTTTGCTGGATTTCAAGATGACAGTTTGAATTTACATGGATCCCTACTGCCCAG
 TCTTTTGTAGATGTCAGCATAAAGGATTTCCCTCTCGAGACATCCACTGTCCATCTCTAAAAAGATGT
 CATTTCGAAAAATGGATCCTAGTTGTACGATAGGATTTTACTGTGAAAATGTCCAGGACTTGAACGAGC
 GTCTGAAGAAAATCACTAAGATGTTGAAAATTTCCCTCAAGGAGAAATATCCACTATTTACTTTTGTAAAT
 GGCCATTCAAAAGACTTTGATTTTACATCTACCGCAGCCAGTGAAGAAGACCTTTTCTCAGAAGATGAAA
 GGAAGAATTTCAAAGATTTAGCACAGAAGAGTTTGTCTCTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR223616 protein sequence
 Red=Cloning site Green=Tags(s)

MEASGTDEVDKLTKEFISAWNNMKYSWVLKTKTYFSRNSPVLLLKGCYHFKEYEDES KM LPARSGCAIEDH
 VIAGNVEEFRKDFISRLWLT YREEFPQIEASALTTDCGWGCTLR TGQMLLAQGLILHFLGRAWTWPDALH
 IENADSDSWTSNTVKKFTASFEASLSGDREL RTPAVSLKETS GKCPDDHVRNEAYHRKII SWFGDSPVA
 VFGLHRLIEFGKKS GKKAGDWYGP AVVAHILRKAVEEARHPDLQGLTIYVAQDCTVYNSDVIDKQTD SVT
 AGDARDKAVIILVPVRLGGERTNTDYLEFVKGVL SLEYCVGIIGGKPKQSYFFAGFQDDSLIYMDPHYCQ
 SFVDVSIKDFPLETFHCPSPKMSFRKMDPSCTIGFYCRNVQDFERASEEITKMLKISSKEKYPLFTFVN
 GHSKDFDFTSTAASEEDLFS EDERKNFKRFSTEEFVLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_175029

ORF Size: 1377 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_175029.2](#)
RefSeq Size: 3236 bp

RefSeq ORF: 1377 bp

Locus ID: 242557

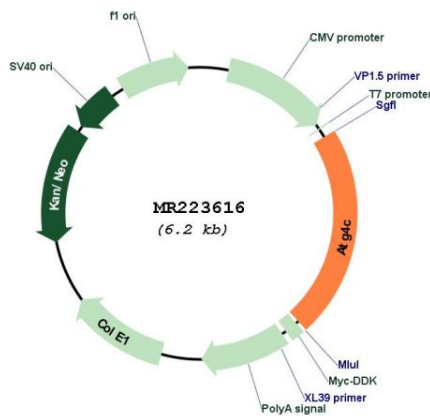
UniProt ID: [Q811C2](#)

Cytogenetics: 4 C6

MW: 52.1 kDa

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]

Product images:



Circular map for MR223616