

Product datasheet for **MR206212**

Atg4a (NM_174875) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Atg4a (NM_174875) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Atg4a
Synonyms: A1627006; Apg4a; Atg4al; Autl2; AV169859
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR206212 representing NM_174875
Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

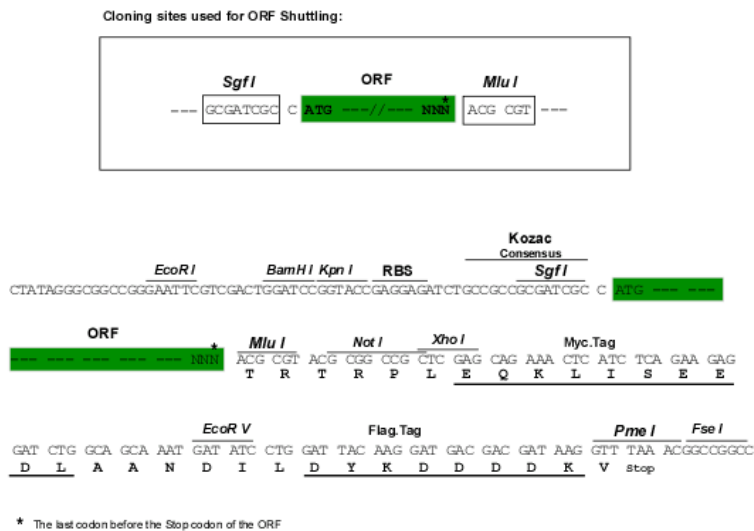
ATGGAGTCAGTTATGTCCAAGTATGAAAACCAGATTCTTATTTCCCTGACTACCTGGAAGAATCCCGG
ATACAGATGAGCTGGTATGGATTCTGGGAAGCAGCACCCCTTAAGACAGAAAAATCTAAGCTGTTGTC
TGATATAAGTGCTCGTCTATGGTTTACATACAGAAGGAAGTTTTCCCGATTGGGGGAACAGGCCCTTCA
TCTGATGCTGGATGGGGATGTATGCTGCGCTGTGGCAGATGATGCTGGCTCAAGCCCTCATCTGCAGAC
ACTTGGGAAGGGATTGGAAGTGGGAGAGACAAAAAGAACAACCCAAAGAATACCAAGGATACTGCAGTG
TTTCTAGATAGAAAAGACTGTTGCTATCAATCCATCAGATGGCACAAATGGGTGTAGGAGAAGGGAAA
TCAATTGGCGAATGGTTTGGACCAACACAGTTGCACAGGTGATAAAAAACTCGCTTTATTTGATGAAT
GGAATTCCTTGGCTGTTTATGTTTCCATGGATAACACAGTGGTCATTGAAGATATCAAGAAAAATGTGCTG
TGTTCTTCTGTGGGTGCTGCTGACCCAGCTGGTATTCTGACTGCATCCAATCAGAGTAGAGACACC
TCTGTCCCGTGTCTCAGCCTGGAACCCCTGCTGCTCATTGTGCCCTTCGCCTGGGCATAAACCAAAATCA
ATCCTGTGTATGTTGAAGCATTCAAAGAGTGTTTAAGATGCCACAGTCTTTAGGGGCTTAGGAGGAAA
GCCAAATAACGCCTATTATTTTATAGGATTCTTAGGAGATGAGCTCATTTTTTTGGACCCACACAACC
CAGACTTTTGTGACATTGAAGAGAGTGGACTAGTAGACGACAGACTTTTCATTGCCTGCAGTCTCCAC
AGCGGATGAGTATCCTGAACTTGGATCCTTCTGTGGCCTTGGGATTTTTCTGCAAAGAAGAGAAAGACTT
TGATAATTGGTGTAGCCTTGTTCAGAAGGAAATCTAAAGGAGAATTTGAGGATGTTTGAATTGGTTCAG
AAGCACCCATCACACTGGCCTCCCTTTGTACCTCCAGCCAAGCCAGAAGTGACAACCACAGGGGCAGAAT
TCATAGAGTCGACTGAACAACCTGGAGGACTTTGAGCTGGAGGAAGATTTTGAATTCGAGTGTAGGC

ACGGTACGGGCGGCTCGAGCAGAAACTCATCTCTGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_174875

ORF Size: 1188 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_174875.5](#)

RefSeq Size: 2192 bp

RefSeq ORF: 1191 bp

Locus ID: 666468

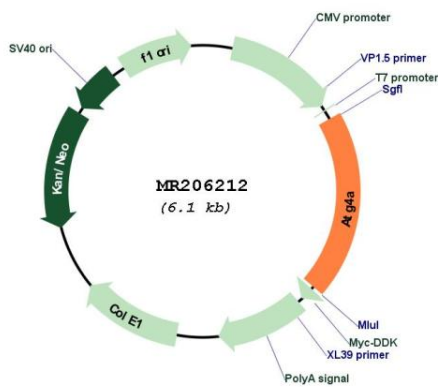
UniProt ID: [Q8C9S8](#)

Cytogenetics: X F1

MW: 45.5 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 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. Preferred substrate is GABARAPL2 followed by MAP1LC3A and GABARAP. Has also an activity of delipidating enzyme for the PE-conjugated forms (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206212