

Product datasheet for **RC225262**

Apg10 (ATG10) (NM_001131028) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Apg10 (ATG10) (NM_001131028) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Apg10
Synonyms:	APG10; APG10L; pp12616
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC225262 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAAGAAGATGAGTTCATTGGAGAAAAACATTCCAACGTTATTGTGCAGAATTCATTAACATTCAC
AACAGATAGGTGATAGTTGGGAATGGAGACCATCAAAGGACTGTTCTGATGGCTACATGTGCAAAATACA
CTTTCAAATTAAGAATGGGTCTGTGATGTCACATCTAGGAGCATCTACCCATGGACAGACATGTCTTCCC
ATGGAGGAGGCTTTCGAGCTACCCTTGGATGATTGTGAAGTGATTGAAACTGCAGCAGCGTCCGAAGTGA
TTAAATATGAGTATCATGTCTTATATTCCTGTAGCTACCAAGTGCCTGTACTTTACTTTAGGGCAAGCTT
TTTAGATGGGAGACCTTTAACTCTGAAGGACATATGGGAAGGAGTTCATGAGTGCTATAAGATGCGACTG
CTACAGGGACCATGGGACACTATTACGCAACAGGAACATCCAATACTTGGCAACCCTTTTTTGACTTC
ATCCCTGCAAGACGAATGAATTCATGACTCCTGTATTAAGAATTCTCAGAAAATCAATAAGAATGTCAA
CTATATCACATCATGGCTGAGCATTGTAGGCCAGTTGTTGGGCTGAATCTACCTCTGAGTTATGCCAAA
GCAACGTCTCAGGATGAACGAAATGTCCCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC225262 protein sequence
 Red=Cloning site Green=Tags(s)

MEDEF IGEKTFQRYCAEFIKHSQQIGDSWEWRPSKDCSDGYMCKIHFQIKNGSVMSHLGASTHGQTCLP
 MEEAFELPLDDCEVIETAAASEVIKYEYHVLVYSCSYQVPVLYFRASFLDGRPLTLKDIWEGVHECYKMRL
 LQGPWDTITQEHPI LGQPFVFLHPCKTNEFMPV LKNSQKINKNVNYITSWLSIVGPVVGLNLPLSYAK
 ATSQDERNVP

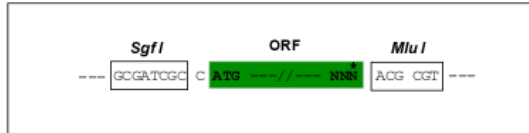
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6018_f02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001131028

ORF Size: 660 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_001131028.2](#)

RefSeq Size: 2432 bp

RefSeq ORF: 663 bp

Locus ID: 83734

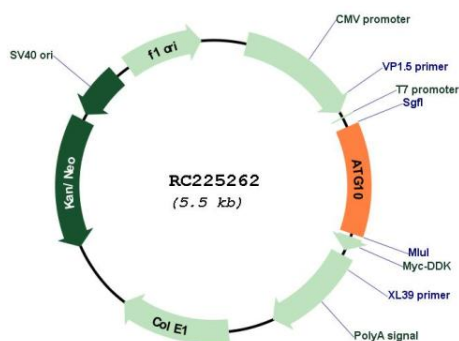
UniProt ID: [Q9H0Y0](#)

Cytogenetics: 5q14.1-q14.2

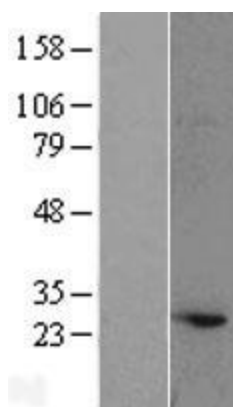
MW: 25.3 kDa

Gene Summary: Autophagy is a process for the bulk degradation of cytosolic compartments by lysosomes. ATG10 is an E2-like enzyme involved in 2 ubiquitin-like modifications essential for autophagosome formation: ATG12 (MIM 609608)-ATG5 (MIM 604261) conjugation and modification of a soluble form of MAP-LC3 (MAP1LC3A; MIM 601242), a homolog of yeast Apg8, to a membrane-bound form (Nemoto et al., 2003 [PubMed 12890687]).[supplied by OMIM, Mar 2008]

Product images:



Circular map for RC225262



Western blot validation of overexpression lysate (Cat# [LY427366]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225262 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).