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Product datasheet for RC202012

Apg12 (ATG12) (NM_004707) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Apg12 (ATG12) (NM_004707) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Apg12
Synonyms:	APG12; APG12L; FBR93; HAPG12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC202012 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTAGCCGGGAACACCAAGTTTCACTGTGTAATTGCGTCCCCCTACTCCGGCGCCTCCTTTGCGACG
CTCCCTGGAGAAAAGCACGCCCACTGCACGCGCTCAGTCGCTACTTCCGCTCTCGAGTGTCTCCAAGCAA
GATGGCGGAGGAGCCGCAGTCTGTGTTGCAGCTTCCTACTTCAATTGCTGCTGGAGGGGAAGGACTTACG
GATGTCTCCCCAGAAACAACCACCCCGGAGCCCCCGTCTTCCGCTGCAGTTTCCCCGGGAACAGAGGAAC
CTGCTGGCGACACCAAGAAAAAAATTGACATTTTGCTAAAGGCTGTGGGAGACACTCCTATTATGAAAAC
AAAGAAGTGGGCAGTAGAGCGAACACGAACCATCCAAGGACTCATTGACTTCATCAAAAAGTTTCTTAAA
CTTGTGGCCTCAGAACAGTTGTTTATTTATGTGAATCAGTCCTTTGCTCCTTCCCCAGACCAAGAAGTTG
GAACTCTCTATGAGTGTTTTGGCAGTGATGGTAAACTGGTTTTACATTACTGCAAGTCTCAGGCGTGGGG
A

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202012 protein sequence
Red=Cloning site Green=Tags(s)

MTSREHQVSLCNCVPLLRRLLCDAPWRKARPLHALSRYFRSRVSPSKMAEEPQSVLQLPTSIAAGGEGLT
DVSPETTTPEPPSSAAVSPGTEEPAGDTKKKIDILLKAVGDTPIMKTKKWAVERTRTIQGLIDFIKKFLK
LVASEQLFIYVNQSFAPSPDQEVGTLYECFGSDGKLVLHYCKSQAWG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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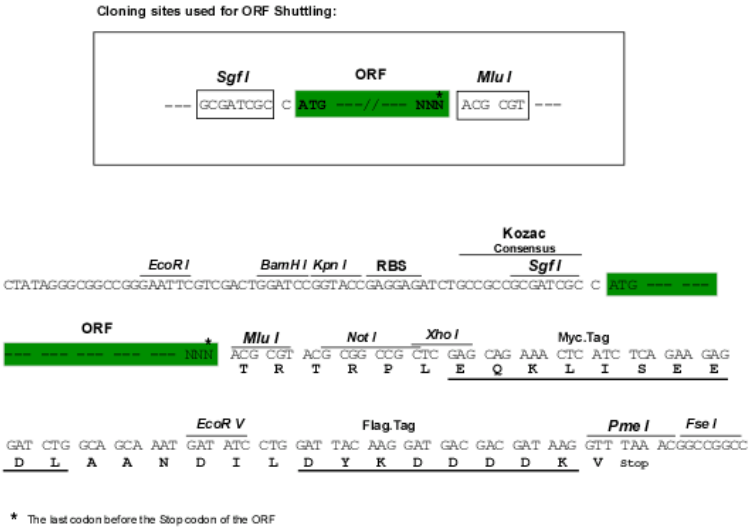
Chromatograms: https://cdn.origene.com/chromatograms/mk6011_c05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004707

ORF Size: 561 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.

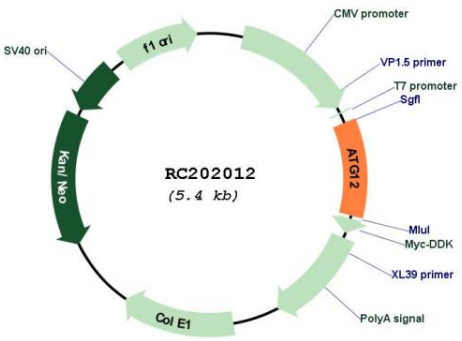
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_004707.2, NP_004698.2

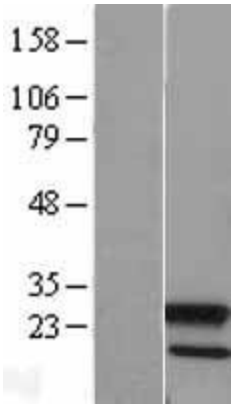
RefSeq Size: 4330 bp

RefSeq ORF:	423 bp
Locus ID:	9140
UniProt ID:	O94817
Cytogenetics:	5q22.3
Domains:	APG12
Protein Pathways:	Regulation of autophagy, RIG-I-like receptor signaling pathway
MW:	20.6 kDa
Gene Summary:	Autophagy is a process of bulk protein degradation in which cytoplasmic components, including organelles, are enclosed in double-membrane structures called autophagosomes and delivered to lysosomes or vacuoles for degradation. ATG12 is the human homolog of a yeast protein involved in autophagy (Mizushima et al., 1998 [PubMed 9852036]).[supplied by OMIM, Mar 2008]

Product images:



Circular map for RC202012



Western blot validation of overexpression lysate (Cat# [LY401486]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202012 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).