

Product datasheet for **RG202012**

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:	TurboGFP
Symbol:	Apg12
Synonyms:	APG12; APG12L; FBR93; HAPG12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202012 representing NM_004707 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACTAGCCGGGAACACCAAGTTTCACTGTGTAATTGCGTCCCCCTACTCCGGCGCCTCCTTTGCGAGC
CTCCCTGGAGAAAAGCACGCCCACTGCACGCGCTCAGTCGCTACTTCCGCTCTCGAGTGTCTCCAAGCAA
GATGGCGGAGGAGCCGAGTCTGTGTTGCAGCTTCTACTTCAATTGCTGCTGGAGGGGAAGGACTTACG
GATGTCTCCCAGAAAACAACACCCCGGAGCCCCGTCTCCGCTGCAGTTTCCCAGGAAACAGAGGAAC
CTGCTGGCGACACCAAGAAAAAATTGACATTTTGCTAAAGGCTGTGGGAGACACTCCTATTATGAAAAC
AAAGAAGTGGGCAGTAGAGCGAACACGAACCATCCAAGGACTCATTGACTTCATCAAAAAGTTTCTTAAA
CTTGTGGCCTCAGAACAGTTGTTATTTATGTGAATCAGTCCTTTGCTCCTTCCCAGACCAAGAAGTTG
GAACTCTCTATGAGTGTGTTTGGCAGTGATGGTAAACTGGTTTTACACTGCAAGTCTCAGGCGTGGGG
A

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:	>RG202012 representing NM_004707 Red=Cloning site Green=Tags(s)
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MTSREHQVSLCNCVPLLRLLCDAPWRKARPLHALSRYFRSRVSPSKMAEEPQSVLQLPTSIAAGGEGLT
DVSPETTTPEPPSSAAVSPGTEEPAGDTKKKIDILLKAVGDTPIMKTKKWAVERTRTIQGLIDFIKKFLK
LVASEQLFIYVNSQFAPSPDQEVGTLYECFGSDGKLVLHYCKSQAWG

TRTRPLE - GFP Tag - V

Restriction Sites:	Sgfl-MluI
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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.

RefSeq: [NM_004707.2](#), [NP_004698.2](#)

RefSeq Size: 2359 bp

RefSeq ORF: 423 bp

Locus ID: 9140

UniProt ID: [O94817](#)

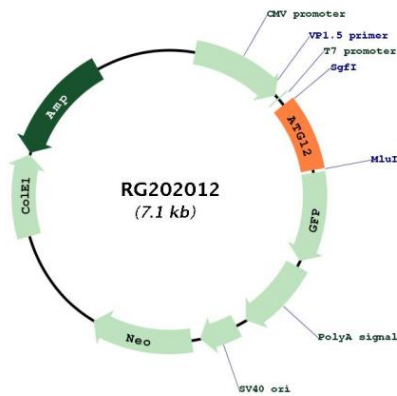
Cytogenetics: 5q22.3

Domains: APG12

Protein Pathways: Regulation of autophagy, RIG-I-like receptor signaling pathway

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 RG202012