

Product datasheet for **RC203453**

Apg3 (ATG3) (NM_022488) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Apg3 (ATG3) (NM_022488) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Apg3
Synonyms:	APG3; APG3-LIKE; APG3L; PC3-96
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203453 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGAATGTGATTAATACTGTGAAGGAAAGGCACTGGAAGTGGCTGAGTACCTGACCCGGTCTCA
AGGAATCAAAGTTTAAGGAAACAGGTGTAATTACCCAGAAGAGTTTGTGGCAGCTGGAGATCACCTAGT
CCACCACTGTCCAACATGGCAATGGGCTACAGGGGAAGAATTGAAAGTGAAGGCATACCTACCAACAGGC
AAACAATTTTTGGTAACCAAAAATGTGCCGTGCTATAAGCGGTGCAAACAGATGGAATATTCAGATGAAT
TGAAGCTATCATTGAAGAAGATGATGGTATGGCGGATGGGTAGATACATATCACAACACAGGTATTAC
AGGAATAACGGAAGCCGTTAAAGAGATCACACTGGAAAATAAGGACAATAAAGGCTTCAAGATTGCTCA
GCACTATGTGAAGAGGAAGAAGATGAAGATGAAGGAGAAGCTGCAGATATGGAAGAATATGAAGAGATG
GATTGTTGGAACAGATGAGGCTACCCTAGATACAAGGAAAATAGTAGAAGCTTGTAAAGCCAAAATGA
TGCTGGCGGTGAAGATGCTATTTTGCAACCAGAACTTATGACCTTTACATCACTTATGATAAATATTAC
CAGACTCCACGATTATGGTTGTTGGCTATGATGAGCAACGGCAGCCTTTAACAGTTGAGCACATGTATG
AAGACATCAGTCAGGATCATGTGAAGAAAACAGTGACCATTGAAAATCACCTCATCTGCCACCACCTCC
CATGTGTTCAAGTTCACCCATGCAGGCATGCTGAGGTGATGAAGAAAATCATTGAGACTGTTGCAGAAGGA
GGGGGAGAAGTTGGAGTTCATATGTATCTTATTTTCTTGAATTTGTACAAGCTGTCAATCCAACAA
TAGAATATGACTACACAAGACACTTCACAATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC203453 protein sequence
Red=Cloning site Green=Tags(s)

MQNVINTVKGKALEVAEYLTPVLKESKFKETGVITPEEFVAAGDHLVHHCPWQWATGEELKVKAYLPTG
 KQFLVTKNVPCKRCKQMEYSDELEAIEEDDGDGGWVDYHNTGITGITEAVKEITLENKDNIRLQDCS
 ALCEEEDEDEGEAADMEEYEESSGLLETDEATLDTRKIVEACKAKTDAGGEDAILQTRTYDLYITYDKYY
 QTPRLWLFQYDEQRQPLTVEHMYEDISQDHVKKTVTIENHPPHPPPPMCSVHPCRHAHEVMKKIETVAEG
 GGELGVHMYLLIFLKFVQAVIPTIEYDYTRHFTM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6065_h05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022488

ORF Size: 942 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_022488.5](#)

RefSeq Size: 1572 bp

RefSeq ORF: 945 bp

Locus ID: 64422

UniProt ID: [Q9NT62](#)

Cytogenetics: 3q13.2

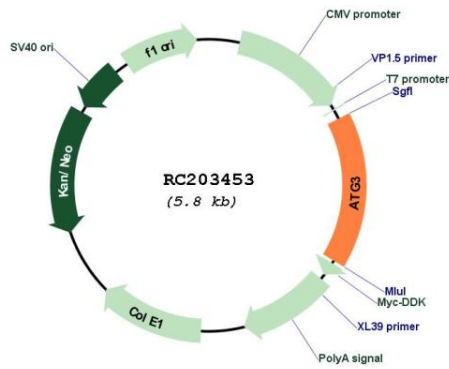
Domains: Autophagy_N, Autophagy_C

Protein Pathways: Regulation of autophagy

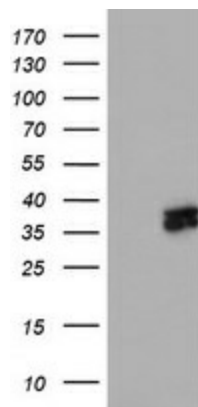
MW: 35.9 kDa

Gene Summary: This gene encodes a ubiquitin-like-conjugating enzyme and is a component of ubiquitination-like systems involved in autophagy, the process of degradation, turnover and recycling of cytoplasmic constituents in eukaryotic cells. This protein is known to play a role in regulation of autophagy during cell death. A pseudogene of this gene is located on chromosome 20. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2013]

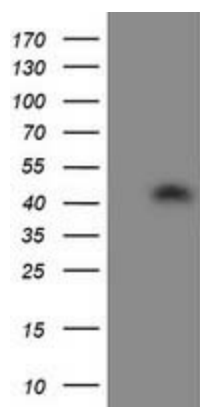
Product images:



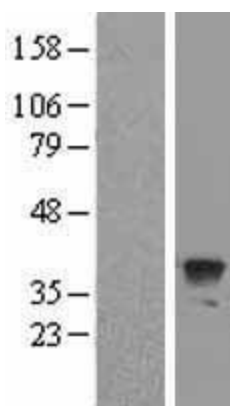
Circular map for RC203453



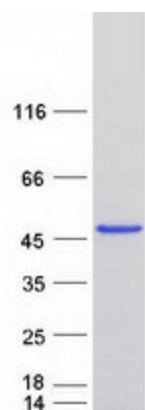
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY ATG3 (RC203453, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ATG3 ([TA503346]). Positive lysates [LY411559] (100ug) and [LC411559] (20ug) can be purchased separately from OriGene.



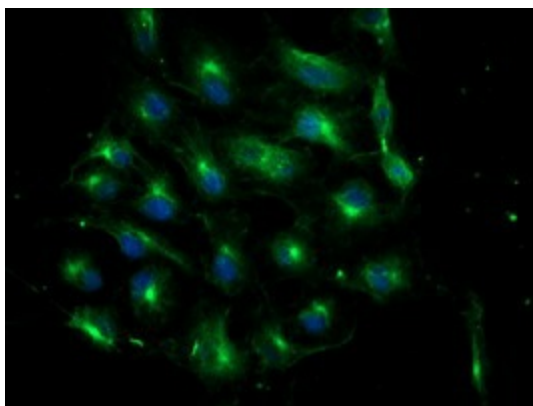
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ATG3 (Cat# RC203453, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ATG3 (Cat# [TA503161]). Positive lysates [LY411559] (100ug) and [LC411559] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY411559]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203453 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATG3 protein (Cat# [TP303453]). The protein was produced from HEK293T cells transfected with ATG3 cDNA clone (Cat# RC203453) using MegaTran 2.0 (Cat# [TT210002]).



Anti-ATG3 mouse monoclonal antibody (TA503346) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY ATG3 (RC203453).