

## Product datasheet for **RC205955**

### **ATG4C (NM\_178221) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ATG4C (NM_178221) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATG4C
Synonyms:	APG4-C; APG4C; AUTL1; AUTL3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC205955 representing NM\_178221  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGGCTACAGGAACAGATGAAGTTGACAAGCTAAAAACCAATTTATATCTGCTTGGAAACAACATGA  
 AATATAGTTGGGTGTTGAAAACAAGACGTATTTTAGTAGAAATTCCTCTGTATTATTGCTTGGAAAATG  
 TTACCATTTTAAATATGAAGATGAAGATAAACGTTACCTGCAGAGTCGGGATGTACAATAGAGGATCAC  
 GTAATTGCAGGAAATGTAGAAGAATTCGTAAGATTTTCTTTCTAGAATATGGCTGACCTACAGGGAAG  
 AATTCCTCAAATAGAAGGCTCAGCTTTGACAACAGACTGTGGGTGGGCTGCACATTGAGAAGTGGCA  
 GATGCTCTGGCTCAAGGACTCACTACACTTTCTTGGTAGAGCTTGGACCTGGCCTGATGCTTTGAAT  
 ATTGAAAATTCAGACTCTGAATCATGGACTTCCCACACTGTCAAAAAATTTACTGCATCATTGAAGCAT  
 CACTTTCAGGGGAAAGAGAATTCAAAACCCAACAATTTCTCTGAAGGAAACAATTGGGAAATTTCTGA  
 TGATCATGAAATGCGAAATGAAGTTTATCATAGGAAAATCATCTCTTGGTTTGGTGATCCCCCTTGGCT  
 CTTTTTGGCTTACATCAACTAATAGAATATGGAAGAAGTCTGGGAAAAAGCAGGAGATTGGTATGGAC  
 CAGCTGTGGTTGCTCACATTTTAAAGAAAAGCAGTTGAAGAAGCAAGGCATCCTGATTTACAAGGAATAAC  
 TATTTATGTTGCACAAGATTGTACAGTTTACAATCTGATGTAATTGATAAACAGAGTGCTTCCATGACT  
 TCTGATAATGCAGATGACAAAGCTGTTATTATTCTAGTTCCTGTTAGACTTGGTGAGAAAGAACCAACA  
 CCGACTACTTAGAATTTGTGAAGGATTTTAAAGCCTGGAATATTGTGTGGGATTTATTGGTGGCAAACC  
 TAAACAGTCATATTACTTTGCTGGATTTCAAGATGACAGTTTGATTTACATGGATCCTCATTACTGCCAA  
 TCTTTTGTAGATGTCAGCATAAAGGATTTCCCTCTTGAGACATCCACTGCCCTTCTCCAAAAAGATGT  
 CTTTTCGAAAAATGGATCCCAGCTGTACAATAGGATTTTACTGTGAAAATGTTTCAGGACTTCAAACGAGC  
 TTCTGAAGAAAATCACAAGATGCTGAAATTTTCTTCTAAGGAGAAAATATCCCTTATTACTTTTGAAT  
 GGTCAATCCAGAGACTATGATTTTACATCTACTACAACCAATGAAGAAGACCTTTTTTTCAGAGGATGAAA  
 AGAAAACAATAAAAAGATTTAGCACGGAAGAGTTTGTCTTCTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC205955 representing NM\_178221  
 Red=Cloning site Green=Tags(s)

MEATGTDEVDKDKTKFISAWNNMYSWVLKTKTYFSRNSPVLLLKGCYHFKYEDEDKTLPAESGCTIEDH  
 VIAGNVEEFRKDFISRIWLTyreEFPQIEGSALTTDCGWGCTLRGQMLLAQGLILHFLGRAWTWPDALN  
 IENSSESWSHTVKKFTASFEASLSGEREFKPTISLKETIGKYSDDHEMRNEVYHRKIIISWFGDSPLA  
 LFGLHQLIEYGKKSgkKAGDWYGPVVAHILRKAVEEARHPDLQGITIYVAQDCTVYNSVDIDKQSASMT  
 SDNADDKAVIILVPVRLGGERTNTDYLFVKGILSLEYCVGIIGGKPKQSYFFAGFQDDSLIYMDPHYCQ  
 SFVDVSIKDFPLETFHCPSPKMSFRKMDPSCTIGFYCRNVQDFKRASEEITKMLKFSSEKEYPLFTFVN  
 GHSRDYDFTSTTTNEEDLFSSEDEKQLKRFSTEEFVLL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2465\\_d01.zip](https://cdn.origene.com/chromatograms/mg2465_d01.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_178221

**ORF Size:** 1374 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\\_178221.2](#)

**RefSeq Size:** 1774 bp

**RefSeq ORF:** 1377 bp

**Locus ID:** 84938

**UniProt ID:** [Q96DT6](#)

**Cytogenetics:** 1p31.3

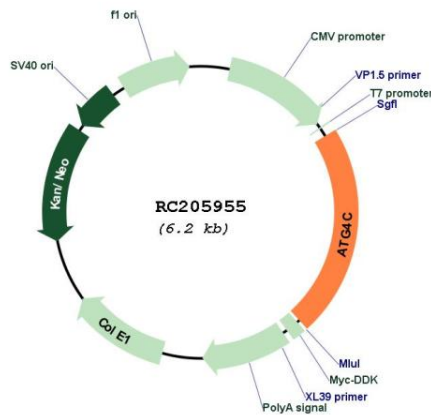
**Protein Families:** Protease

**Protein Pathways:** Regulation of autophagy

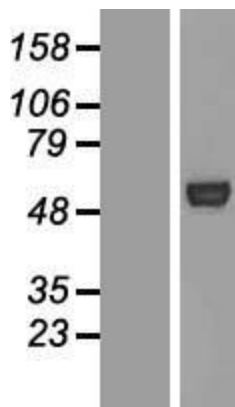
**MW:** 52.3 kDa

**Gene Summary:** Autophagy is the process by which endogenous proteins and damaged organelles are destroyed intracellularly. Autophagy is postulated to be essential for cell homeostasis and cell remodeling during differentiation, metamorphosis, non-apoptotic cell death, and aging. Reduced levels of autophagy have been described in some malignant tumors, and a role for autophagy in controlling the unregulated cell growth linked to cancer has been proposed. This gene encodes a member of the autophagin protein family. The encoded protein is also designated as a member of the C-54 family of cysteine proteases. Alternate transcriptional splice variants, encoding the same protein, have been characterized. [provided by RefSeq, Jul 2008]

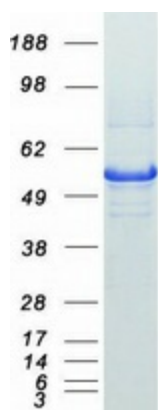
**Product images:**



Circular map for RC205955



Western blot validation of overexpression lysate (Cat# [LY409886]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC216088] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATG4C protein (Cat# [TP305955]). The protein was produced from HEK293T cells transfected with ATG4C cDNA clone (Cat# RC205955) using MegaTran 2.0 (Cat# [TT210002]).