

## Product datasheet for **RG209627**

### **ATG4D (NM\_032885) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ATG4D (NM_032885) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ATG4D
Synonyms:	APG4-D; APG4D; AUTL4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG209627 representing NM\_032885  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAACTCAGTGTCCGCCCGCCGCGCAGTACCGGAGCAGCAGCCGGAGGACGCGCGCCCGGCCCG  
 AGGCCCGCAGGCCGCGGGGTCCCAGAGGCCAGACCCCAACGGCCTGGGGCCTTCCGAGGCCAGCGGCC  
 CGCTCTTGCTCTCCCGGGCTGGCCGAGTGAGCCGGACGAAGTGACAAAGTTCAAGGCCAAGTTCCTG  
 ACAGCCTGGAACAACGTCAAGTACGGTTGGGTGGTAAAAGCCGGACCAGCTTTAGCAAGATCTCCAGCA  
 TCCACCTCTGTGGCCGCCCTACCGTTTCGAGGGCGAGGGTGACATACAGCGTTTCAGCGGGACTTTGT  
 GTCCCGCTGTGGCTCACATACCGCCGGGACTTCCCGCCCTTCTGGGGCTGCCTGACCTCGGACTGT  
 GGCTGGGGTGCATGTTACGCAGCGCCAGATGATGCTGGCACAGGGCCTTCTGCTGCATTTCTGCCCA  
 GAGACTGGACATGGGCCGAGGGCATGGCCTGGGCCCCCTGAGCTGTCAGGGTCAGCCTCTCCAGCCG  
 GTACCATGGCCCTGCCCGCTGGATGCCCCACGCTGGGCCAGGGTGCCCTGAGCTGGAGCAGGAACGC  
 CGGCACCGGCAGATTGTGCTGCTGGTTCGCCGACCACCCCGGGCCCTTTGGCCTACACCGGCTGGTGG  
 AGCTTGGGCAGAGCTCAGGCAAGAAGGCAGGTGACTGGTATGGGCCATCGCTAGTGGCACACATCCTCAG  
 GAAAGCCGTGGAGAGCTGCTCCGACGTCACCCGCTGGTGGTGTACGTTTCTCAGGACTGCACAGTGATC  
 AAGGCGGATGTGGCACGCTGGTGGCCAGGCCAGACCCACAGCCGAGTGGAAAGTCTGTGGTCACTCTGG  
 TGCCCGTGCAGCTGGGTGGCGAGACTCTCAACCCGCTGTATGTGCCCTGCGTGAAGGAACCTCGCTTG  
 CGAGCTGTGCCTGGGCATCATGGGTGGGAAACCGCAGACTCACTGTACTTATTGGCTACCAAGATGAC  
 TTCTCTGTACTGGACCCTCACTACTGCCAGCCACTGTGGATGTAGCCAGGCCGACTTCCCCTGG  
 AGTCTTCCACTGCACCTCGCCCGCAAGATGGCCTTTGCCAAGATGGACCAAGCTGTACCGTGGCTGG  
 CTATGTGGAGACAGGAAGGAGTTTGAGACACTCTGCTCAGAGCTGACCAGGGTCTCAGCTCCTCCTCA  
 GCCACAGAGCGGTACCCATGTTACCCTGGCCGAGGGCCATGCTCAGGACCACAGCCTGGACGACCTCT  
 GCTCCAGCTCGCCAGCCACACTCCGCTCCTCGCACAGGGCGGCTCCTCAGGGCCAAACGCCCCAG  
 CTCTGAGGACTTTGTGTTTTTA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG209627 representing NM\_032885  
 Red=Cloning site Green=Tags(s)

MNSVSPAAQYRSSSPEDARRRPEARRPRGPRGPDNGLGPSGASGPALGSPGAGPSEPDEVDKFKAKFL  
 TAWNNVKYGWVVKSRTSFSKISSIHLGRRYRFEFEGDIQRFQRDFVSRWLTYRRDFPPLPGGLTSDC  
 GWGCMRLRSGQMMLAQGLLLHFLPRDWTWAEGMGLGPELSEGSASPSRYHGPARMPPRWAQGAPELEQER  
 RHRQIVSWFADHPRAPFGLHRLVELGQSSGKKAGDWYGPSLVAHILRKAVESCDVTRLVVYVSQDCTVY  
 KADVARELVARPDPTAEWKSVVILVPVRLGGETLNPVYVPCVKELLRCELCLGIMGGKPRHSLYFIFYQDD  
 FLLYLDPHYCQPTVDVSQADFPLESFHCTSPRKMAFAKMDPSCTVGFYAGDRKEFETLCELTRVLSSSS  
 ATERYPMFTLAEGHAQDHLDDLCSQLAQPTRLRLPRTGRLLRAKRPSSSEDFVFL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_032885

**ORF Size:** 1422 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\\_032885.6](#)

**RefSeq Size:** 1929 bp

**RefSeq ORF:** 1425 bp

**Locus ID:** 84971

**UniProt ID:** [Q86TL0](#)

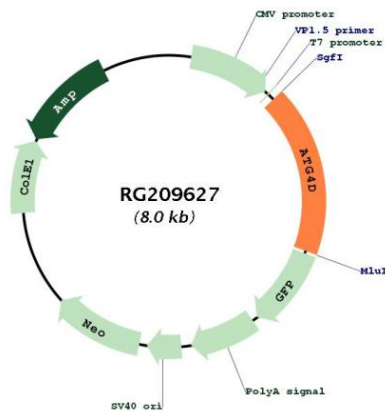
**Cytogenetics:** 19p13.2

**Domains:** Peptidase\_C54

**Protein Pathways:** Regulation of autophagy

**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 belongs to the autophagy-related protein 4 (Atg4) family of C54 endopeptidases. Members of this family encode proteins that play a role in the biogenesis of autophagosomes, which sequester the cytosol and organelles for degradation by lysosomes. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]

**Product images:**



Circular map for RG209627