

## Product datasheet for **RC213198**

### **ATAD3A (NM\_018188) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ATAD3A (NM_018188) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATAD3A
Synonyms:	HAYOS; PHRINL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC213198 representing NM\_018188  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTCGTGGCTCTTCGGCATTACAAGGGCCCCAAGGGTGAAGGCGGGGCCGCCGCCCTTTGCCGC  
CCGCGCAGCCCGGGCCGAGGGCGCGGGACC CGGGTTGGGAGACCGCCGGCCCAAGGACAAATG  
GAGCAACTTCGACCCACCGGCCTGGAGCGCGCCCAAGGCGCGCGAGCTGGAGCACTCGCGTTAT  
GCCAAGGACGCCCTGAATCTGGCACAGATGCAGGAGCAGACGCTGCAGTTGGAGCAACAGTCCAAGCTCA  
AAATGCGGCTGGAAGCCCTGAGCCTGCTGCACACACTAGTCTGGGCATGGAGTCTCTGCCGTGCCGAGC  
CGTGCAGACACAGGAGCGGCTGTCAGGCAGTGCCAGCCCTGAGCAAGTCCAGCTGGTGAAGTGTGTCT  
CTGCAGGAGTATGAGGCCCGGTGGAGCAGCTCAAGAGCGAGCAGATCCGGGCGCAGGCTGAGGAGAGGA  
GGAAGACCCTGAGCGAGGAGACCCGGCAGCACCAGGCCAGGGCCAGTATCAAGACAAGTGGCCCGGCA  
GCGCTACGAGGACCAACTGAAGCAGCAGCAACTTCTCAATGAGGAGAATTTACGGAAGCAGGAGGAGTCC  
GTGCAGAAAGCAGGAAGCCATGCGGCGAGCCACCGTGGAGCGGGAGATGGAGCTGCCGCACAAGAATGAGA  
TGCTGCGAGTGGAGGCCGAGGCCCGGGCGCGCCAAGGCCGAGCGGGAGAATGCAGACATCATCCGCGA  
GCAGATCCGCCTGAAGGCGGGCAGCACCGTCAAGCCGCTTGGAGTCCATCAGGACGGCTGGCACCTTG  
TTTGGGAAGGATTCCGTGCCTTTGTGACAGACTGGGACAAAGTACAGCCACCGTGGCTGGGCTGACGC  
TGCTGGCTGTTGGGGTCTACTCAGCCAAGAATGCCACGCTTGTGCGCCGGCCGCTTCATCGAGGCTCGGCT  
GGGGAAGCCGTCCTAGTGAGGGAGACGTCCTCCGATCACGGTGTGGAGCGCTGCGGCACCCCATCCAG  
GTCAGCCGGCGGCTCCTCAGTCGACCCAGGACGCGCTGGAGGGTGTGTGCTCAGTCCCAGCCTGGAAG  
CACGGGTGCGCGACATCGCCATAGCAACAAGGAACACCAAGAAGAACCAGCAGCCTGTACAGGAACATCCT  
GATGTACGGGCCACAGGCACCGGGAAGACGCTGTTTGCCAAGAACTCGCCCTGCACTCAGGCATGGAC  
TACGCCATCATGACAGGCGGGGACGTGGCCCCATGGGGCGGGAAGGCGTGACCGCCATGCAACAAGTCT  
TTGACTGGCCAAATACCAGCCGGCGCGGCTCCTGCTCTTTGTGGATGAAGCGGACGCTTCCTTCGGAA  
GCGAGCCACCGAGAAGATAAGCGAGGACCTCAGGGCCACACTGAACGCTTCCTGTACCGCACGGGCCAG  
CACAGCAACAAGTTCATGCTGGTCTGGCCAGCAACCAACCAGAGCAGTTCGACTGGGCCATCAATGACC  
GCATCAATGAGATGGTCCACTTCGACCTGCCAGGGCAGGAGGAACGGGAGCGCTGGTGAAGATGTATTT  
TGACAAGTATGTTCTTAAGCCGGCCACAGAAGGAAGCAGCGCTGAAGCTGGCCAGTTTGACTACGGG  
AGGAAGTGTCTCGGAGTCTGCTCGGCTGACGGAGGCATGTGGGCGGGAGATCGCTCAGCTGGCCGTGT  
CCTGGCAGGCCACGGCGTATGCCTCCGAGGACGGGTCTGACCGAGGCCATGATGGACACCCGCGTGCA  
AGATGCTGTCCAGCAGCACCAGCAGAAGATGTGCTGGCTGAAGGCGGAAGGGCCTGGGCGTGGGACGAG  
CCCTCCCCATCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC213198 representing NM\_018188  
 Red=Cloning site Green=Tags(s)

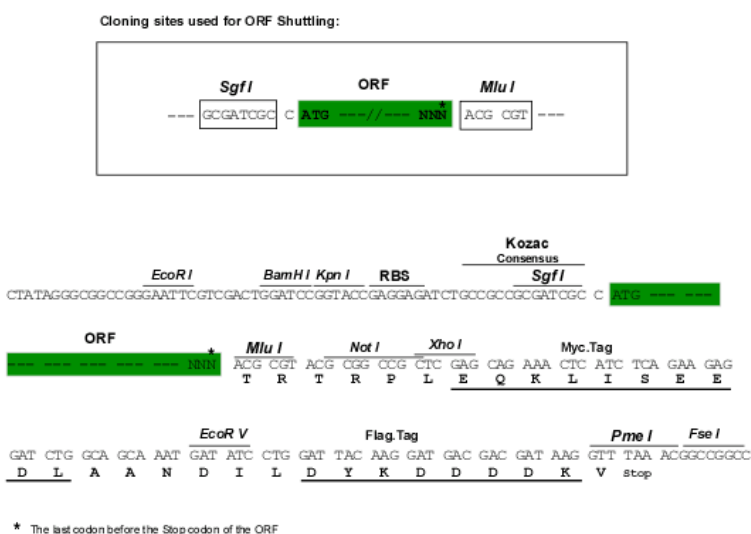
MSWLFGINKGPKGEGAGPPPPLPPAQPGAEGGGDRGLGDRPAPKDKWSNFDPTGLERAAKAARELEHSRY  
 AKDALNLAQMQEQLQLEQQSKLKMRLLEALLHTLVWAWSLCRAGAVQTQERLSGSASPEQVPAGECCA  
 LQEYEAAVEQLKSEQIRAQAEERRKTLSEETRQHQARAQYQDKLARQRYEDQLKQQQLLNEENLRKQEES  
 VQKQEAAMRRATVEREMELRHKNEMLRVEAEARARAKAERENADIIREQIRLKAAEHRQTVLESIRTAGTL  
 FGEGFRAFVTDWDKVTATVAGLTLAVGVYSAKNATLVAGRFIEARLGKPSLVRETSRITVLEALRHPIQ  
 VSRRLLSRPQDALEGVVLSPSLEARVRDIAIATRNTKKNRSLYRNILMYGPPGTGKTLFAKKLALHSGMD  
 YAIMTGGDVAPMGREGVTAMHKLFDWANTSRRLLLFVDEADAF LRKRATEKISEDLRATLNAFLYRTGQ  
 HSNKFMLV LASNQPEQFDWAINDRINEMVHFDLPGQEERERLVRMYFDKYVLKPALEGKQRLKLAQFDYG  
 RKCSEVARL TEGMSGREIAQLAVSWQATAYASEDGVLEAMMDTRVQDAVQQHQKMCWLKAE GPGRGDE  
 PPS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8120\\_d02.zip](https://cdn.origene.com/chromatograms/mk8120_d02.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_018188

**ORF Size:** 1902 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_018188.5](#)

**RefSeq Size:** 2656 bp

**RefSeq ORF:** 1905 bp

**Locus ID:** 55210

**UniProt ID:** [Q9NVI7](#)

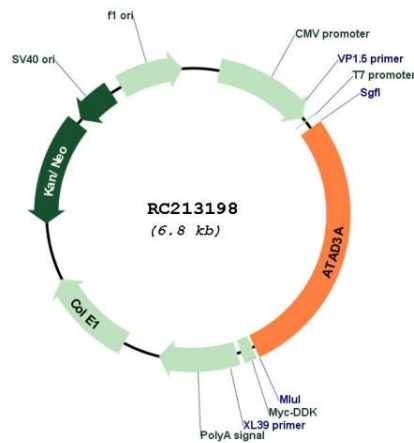
**Cytogenetics:** 1p36.33

**Domains:** AAA, AAA

**MW:** 71.8 kDa

**Gene Summary:**

This gene encodes a ubiquitously expressed mitochondrial membrane protein that contributes to mitochondrial dynamics, nucleoid organization, protein translation, cell growth, and cholesterol metabolism. This gene is a member of the ATPase family AAA-domain containing 3 gene family which, in humans, includes two other paralogs. Naturally occurring mutations in this gene are associated with distinct neurological syndromes including Harel-Yoon syndrome. High-level expression of this gene is associated with poor survival in breast cancer patients. A homozygous knockout of the orthologous gene in mice results in embryonic lethality at day 7.5 due to growth retardation and defective development of the trophoblast lineage. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2017]

**Product images:**


Circular map for RC213198