

## Product datasheet for **RC230314**

### ATAD3A (NM\_001170535) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ATAD3A (NM_001170535) 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)



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**ORF Nucleotide Sequence:**

>RC230314 representing NM\_001170535  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCGTGGCTCTTCGGCATTACAAGGGCCCCAAGGGTGAAGACGCGGGGCCCGCCGCCTTTGCCGC  
 CCGCGCAGCCCGGGCCGAGGGCGGGGACCGCGCTTGGGAGACCGCCGGCCCAAGGACAAATG  
 GAGCAACTTCGACCCACCGCCTGGAGCGCGCCCAAGGCGCGCGAGCTGGAGCACTCGCGTTAT  
 GCCAAGGACGCCCTGAATCTGGCACAGATGCAGGAGCAGACGCTGCAGTTGGAGCAACAGTCCAAGCTCA  
 AAGAGTATGAGGCCCGCTGGAGCAGCTCAAGAGCAGCAGATCCGGGCGCAGGCTGAGGAGAGGAGAA  
 GACCTGAGCGAGGAGACCCGGCAGCACCAGGCCAGGGCCAGTATCAAGACAAGCTGGCCCGCAGCGC  
 TACGAGGACCAACTGAAGCAGCAGCAACTTCTCAATGAGGAGAATTTACGGAAGCAGGAGGAGTCCGTGC  
 AGAAGCAGGAAGCCATGCGGCGAGCCACCGTGGAGCGGGAGATGGAGCTCGGCACAAGAATGAGATGCT  
 GCGAGTGGAGGCCGAGGCCCGGGCGCGCCAAGGCCGAGCGGGAGAATGCAGACATCATCCGCGAGCAG  
 ATCCGCTGAAGGCGGCCGAGCACCCTCAGACCGTCTTGGAGTCCATCAGGACGGCTGGCACCTGTTTG  
 GGAAGGATTCGGTGCCTTTGTGACAGACTGGGACAAAGTGACAGCCACGGTGGCTGGGCTGACGCTGCT  
 GGCTGTTGGGTCTACTCAGCCAAGAATGCCACGCTTGTGCGCGCCGCTTATCGAGGCTCGGCTGGGG  
 AAGCCGTCCTAGTGAGGAGACGTCCCGCATCACGGTGTGAGGCGCTGCGGCACCCCATCCAGGTCA  
 GCCGGCGGCTCCTCAGTCGACCCAGGACGCGCTGGAGGGTGTGTGCTCAGTCCAGCCTGGAAGCAGC  
 GGTGCGGACATCGCCATAGCAACAAGGAACACCAAGAAGAACCAGCAGCTGTACAGGAACATCCTGATG  
 TACGGGCCACAGGACCCGGGAAGACGCTGTTTCCAAGAACTCGCCCTGCACTCAGGCATGGACTACG  
 CCATCATGACAGGCGGGACGTGGCCCCATGGGCGGGGAGGCGTGACCGCCATGCACAAGCTCTTTGA  
 CTGGGCCAATACAGCCGCGCGCCTCCTGCTTTTGTGGATGAAGCGGACGCCTTCTTCGGAAGCGA  
 GCCACCGAGAAGATAAGCGAGGACCTCAGGGCCCACTGAACGCCTTCTGTACCGCACGGGCCAGCACA  
 GCAACAAGTTCATGCTGCTCCTGGCCAGCAACCAACCAGAGCAGTTCGACTGGGCCATCAATGACCGCAT  
 CAATGAGATGGTCCACTTCGACCTGCCAGGCGAGGAAACGGGAGCGCCTGGTGAGAATGTATTTTAC  
 AAGTATGTTCTTAAGCCGGCCACAGAAGAAAGCAGCGCTGAAGCTGGCCAGTTTACTACGGGAGGA  
 AGTGTCTCGGAGGTCGCTCGGCTGACGGAGGGCATGTGCGGCGGGAGATCGCTCAGTGGCCGTGCTCTG  
 GCAGGCCACGGCGTATGCCTCCGAGGACGGGTCTGACCGAGGCCATGATGGACACCCGCTGCAAGAT  
 GCTGTCCAGCAGCACCAGCAGAAGATGTCTGGCTGAAGCGGAAGGGCCTGGGCGTGGGACGAGCCCT  
 CCCCATCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC230314 representing NM\_001170535  
 Red=Cloning site Green=Tags(s)

MSWLFGINKGPKGEDAGPPPPLPPAQPGEAGGDRGLGDRPAPKDKWSNFDPTGLERAACAARELEHSRY  
 AKDALNLAQMQEQLQLEQQSKLKEYEA AVEQLKSEQIRAQAEERRKTLSEETRQHQAQYQDKLARQR  
 YEDQLKQQQLNEENLRKQEE SVQKQEA MRRA TVEREMELRHKNEMLRVEAEARAKAERENADIREQ  
 IRLKAAEHRQTVLESIRTAGTLFGEGFRAFVTDWDKVTATVAGL TLLAVGVYSAKNATLVAGR FIEARLG  
 KPSLVRETSRITVLEALRHPIQVSRLLSRPQDALEGVVLSPSLEARVRDIAIATRNTKKNRSLYRNILM  
 YGPPGTGKTLFAKKLALHSGMDYAIMTGGDVAPMGREGVTAMHKLFDWANTSRRGLLLFVDEADAF LRKR  
 ATEKISEDLRATLNAFLYRTGQHSNKFMLV LASNQPEQFDWAINDRINEMVHFDLPQGEERERLVRMYFD  
 KYVVKPATGKQRLKLAQFDYGRKCEVARL TEGMSGREIAQLAVSWQATAYASEDGVLT EAMMDTRVQD  
 AVQQHQQKMCWLKAEGPGRGDEPS

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001170535

**ORF Size:** 1758 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\\_001170535.3](#)

**RefSeq ORF:** 1761 bp

**Locus ID:** 55210

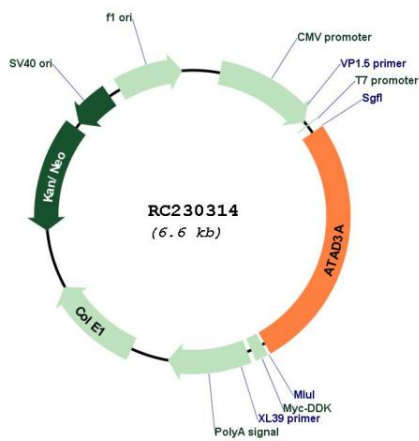
**UniProt ID:** [Q9NVI7](#)

**Cytogenetics:** 1p36.33

**MW:** 66.7 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 RC230314