

Product datasheet for **RR210390**

Atad3a (NM_001034922) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atad3a (NM_001034922) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Atad3a
Synonyms:	Atad3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR210390 representing NM_001034922
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGTGGCTCTTCGGCATCAAGGGCCCCAAGGGAGAAGGCACAGGGCCTCCGCTGCCCTTGCCGCCCC
 CCCAACCTGGGGCGAAAAGTGGCGGCGACCGTGGTGCGGGAGATCGGCCATCGCCCAAGGACAAATGGAG
 CAACTTCGACCCGACGGGCTGGAGCGTGGCGCAAAGCGGGCGCGAGTTGGAGCACTCGCGCCATGCC
 AAGGAGGCACTGAATCTTGCACAGATGCAGGAGCAGACTGCAGCTGGAACAACAGTCTAAGCTCAAGG
 AATATGAAGCTGCCGTAGAGCAGCTGAAGAGCGAGCAGATCCGCGTGCAAGCCGAGGAAAGAAGGAAAC
 CCTGAACGAAGAGACGGCGCAGCACCAGGCTAGGGCCAGTACCAGGATAAGCTAGCCCGACAACGCTAT
 GAGGACCAGCTGAAACAACAGCAACTTCTGAATGAAGAGAATTTAAGGAAACAAGAGGAATCTGTGCAGA
 AGCAGGAGGCCATACGGCGAGCCACTGTGGAGCGAGAGATGGAGCTGCGGCATAAGAATGAGATGTTGCC
 GGTGGAAGCTGAGGCTCGAGCACGGGCCAAGGCCGATCGAGAGAATGCAGACATCATCCGGGAACAGATT
 CGACTCAAGGCTGCTGAGCACCGCCAGACCATCTTGGAGTCTATCAGGACAGCCGGCACCTTGTTGGTG
 AAGGATCCGTGCCTTTGTGACAGACTGGGACAAAGTGACAGCCACGGTGGCTGGATTGACACTATTAGC
 TGTTGGAGTCTATTCTGCCAAGAACGCTACTTCTGTTGCTGGACGGTATATTGAGGCCGATTGGGAAAAG
 CCGTCCCTGGTGAGAGAGACCTCCCGTATCTCAGTGTGGAGGCATTGAGGCATCCCATCCAGGTCAGCA
 GGCGGCTGGTCAGCAGACCCAGGATGCGTTGGAGGGCGTCATCCTCAGTCTAGCCTGGAGGCACGGGT
 CCGAGATATTGCCATCGCAACAAGAAAATACCAAGAAGAACAAAAGCCTGTACAGAAACGTTCTGATGAT
 GGGCCACCAGGGACTGGCAAGACACTATTTGCTAAGAACTCGCACTGCATTGAGGCATGGACTACGCCA
 TCATGACAGGCGGGGACGTGGCCCCATGGGGCGGGAGGGTGTGACTGCCATGCACAAGGCTTTCGACTG
 GGCAAGCACAGCAGACGAGGCCTCCTGCTCTTTGTGGATGAAGCAGATGCCTTCCCTCAGGAAGCGAGCA
 ACTGAAAAGATAAGTGAAGACCTCAGGGTACTCTGAATGCATTCTACAGGACAGGACAACACAGTA
 ATAAGTTCATGCTGGTCTGCCAGTAACCAGCCTGAGCAGTTCGATTGGGCCATCAATGACCGCATTGA
 CGAGATGGTCTGCTTTGCCCTGCCACAGCGGGAGGAGCGGGAGCGCCTGGTGAGAATGATTTTGACAAG
 TATGTCCTTAAGCCGGCCACAGAAGGAAAGCAACGCTTGAAGGTGGCCAGTTTGACTACGGAAAGAAGT
 GCTCAGAGGTGCGCCAGCTGACGGCGGGAATGTCAGGCCGGGAGATAGCTCAGCTTGCCGTGGCATGGCA
 GGCCATGGCATATTCGTCTGAGGATGGGTCTCACGGAGGCTATGATGGATGCCCGTGTGAGGATGCT
 GTCCAGCAGCACCAGCAGAAGATGCAGTGGCTTAAAGTAGAGAGACCTGACTCTGAGGCCAGCAAGCCAC
 CACATCCGTCACCTCAGCTGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR210390 representing NM_001034922
 Red=Cloning site Green=Tags(s)

MSWLFGIKGPKEGEGTPPLPLPPAQPGESEGGDRGAGDRPSPKDKWSNFDPTGLERAACAARELEHSRHA
 KEALNLAQMQEQLQLEQQSKLKEYEAAVEQLKSEQIRVQAEERRKTLNEETRQHQAARAQYQDKLARQRY
 EDQLKQQQLLNEENLRKQEEVQKQEAIRRATVEREMELRHKNEMLRVEAEARARAKADRENADIIREQI
 RLKAAEHRQTILESIRTAGTLFGEGFRAFVTDWDKVTATVAGLTLAVGVYSAKNATSVAGRYIEARLGK
 PSLVRETSRISVLEALRHPIQVSRRLVSRPQDALEGVILSPSLEARVRDIAIATRNTKKNKSLYRNVLMY
 GPPGTGKTLFAKKLALHSGMDYAIMTGGDVAPMGREGVTAMHKVFDWASTSRRGLLLFVDEADAFLRKRA
 TEKISEDLRATLNAFLHRTGQHSNKFMLVLASNQPEQFDWAINDRIDEMVCFALPQREERERLVRMYFDK
 YVLKPATEGKQRLKVAQFDYGGKCEVAQLTAGMSGREIAQLAVAWQAMAYSSSEGGVLEAMMDARVQDA
 VQQHQKMQWLKVERPDSEASKPPHPSLLSC

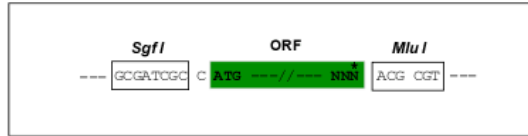
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

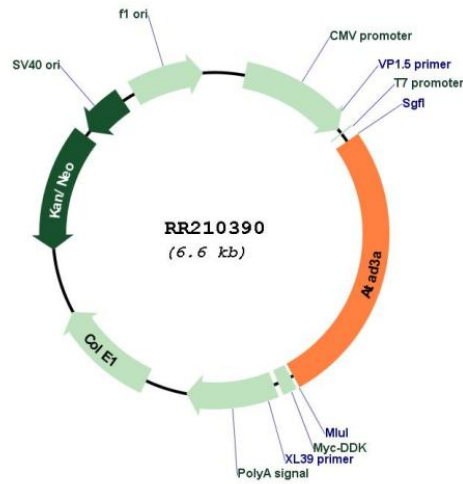
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001034922

ORF Size: 1773 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:	<ol style="list-style-type: none">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_001034922.1 , NP_001030094.1
RefSeq Size:	2416 bp
RefSeq ORF:	1776 bp
Locus ID:	298682
UniProt ID:	Q3KRE0
Cytogenetics:	5q36
MW:	66.8 kDa
Gene Summary:	Essential for mitochondrial network organization, mitochondrial metabolism and cell growth at organism and cellular level. May play an important role in mitochondrial protein synthesis. May also participate in mitochondrial DNA replication. May bind to mitochondrial DNA D-loops and contribute to nucleoid stability. Required for enhanced channeling of cholesterol for hormone-dependent steroidogenesis (By similarity).[UniProtKB/Swiss-Prot Function]