

Product datasheet for **RC234303**

ATP5A (ATP5A1) (NM_001001935) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP5A (ATP5A1) (NM_001001935) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP5A
Synonyms:	ATP5A; ATP5A1; ATP5AL2; ATPM; COXPD22; hATP1; HEL-S-123m; MC5DN4; MOM2; OMR; ORM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC234303 representing NM_001001935
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCTCTATTCTTGAAGAGCGTATTCTTGGAGCTGATACCTCTGTTGATCTTGAAGAACTGGGCGTG
 TCTTAAGTATTGGTGATGGTATTGCCCGCTACATGGGCTGAGGAATGTTCAAGCAGAAGAAATGGTAGA
 GTTTTCTTCAGGCTTAAAGGGTATGTCCTTGAACCTGACAATGTTGGTGTTGTCGTGTTTGA
 AATGATAAACTAATTAAGGAAGGAGATATAGTGAAGAGGACAGGAGCCATTGTGGACGTTCCAGTTGGTG
 AGGAGCTGTTGGGTCTGTAGTTGATGCCCTTGGTAATGCTATTGATGGAAGGGTCCAATTGGTTCCAA
 GACGCGTAGGCGAGTTGGTCTGAAAGCCCCGGTATCATTCTCGAATTCAGTGCGGGAACCAATGCAG
 ACTGGCATTAAAGGCTGTGGATAGCTTGGTGCCAATTGGTCGTGGTCAGCGTGAAGTATTATTGGTGACC
 GACAGACTGGGAAAACCTCAATTGCTATTGACACAATCATTAAACCAGAAACGTTTCAATGATGGATCTGA
 TGAAGAAGAAGCTGTACTGTATTTATGTTGCTATTGGTCAAAAGAGATCCACTGTTGCCAGTTGGTG
 AAGAGACTTACAGATGCAGATGCCATGAAGTACACCATTGTGGTGTGGCTACGGCTCGGATGCTGCC
 CACTTCAGTACCTGGCTCCTTACTCTGGCTGTTCCATGGGAGAGTATTTAGAGACAATGGCAACATGC
 TTTGATCATCTATGACGACTTATCCAAACAGGCTGTTGCTTACCGTCAGATGTCTCTGTTGCTCCGCCGA
 CCCCTGGTCTGAGGCCTATCCTGGTGATGTGTTCTACCTACACTCCCGTTGCTGGAGAGAGCAGCCA
 AAATGAACGATGCTTTTGGTGGTGGCTCCTTGACTGCTTGGCAGTCATAGAAACACAGGCTGGTGATGT
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 TACAAAGGTATCCGCCCTGCAATTAACGTTGGTCTGTCTGTATCTCGTGTGGATCCGCTGCCAAACCA
 GGGCTATGAAGCAGGTAGCAGGTACCATGAAGCTGGAATTGGCTCAGTATCGTGAGGTTGCTGCTTTTGC
 CCAGTTGCGTTCTGACCTCGATGCTGCCACTCAACAACCTTTGAGTCTGGCGTGCCTTAAGTGGTTG
 CTGAAGCAAGGACAGTATTCTCCATGGCTATTGAAGAACAAGTGGCTGTTATCTATGCGGGTGAAGGG
 GATATCTTGATAAACTGGAGCCAGCAAGATTACAAAGTTTGAAGTGTCTTCTGTCTCATGTCGTGAG
 CCAGCACCAAGCCTTGTGGGCACTATCAGGGCTGATGGAAAGATCTCAGAACAATCAGATGCAAGCTG
 AAAGAGATTGTAACAAATTTCTGGCTGGATTTGAAGCT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC234303 representing NM_001001935
 Red=Cloning site Green=Tags(s)

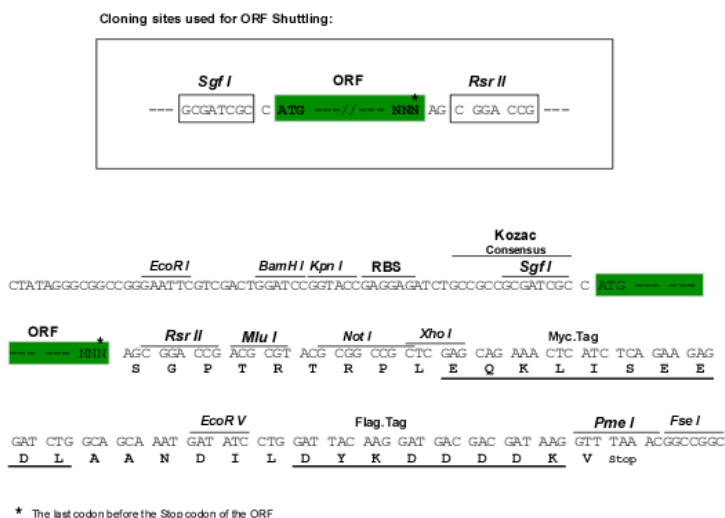
MSSILEERILGADTSVDLEETGRVLSIGDGIARVHGLRNVQAEEMVEFSSGLKGMSLNLEPDNVGVVVF
 NDKLIKEGDIVKRTGAIVDVPVGEELLGRVVDALGNAIDGKGPISKTRRRVGLKAPGIIIPRISVREPMQ
 TGIKAVDSLVPPIGRGQRELIIGDRQTGKTSIAIDTIINQKRFNDGSDEKKLYCIYVAIGQKRSTVAQLV
 KRLTDADAMKYTIIVSATASDAAPLQYLAPYSGCSMG EYFRDNGKHALIIYDDL SKQAVAYRQMSLLRR
 PPGREAYPGDVFLHSRLLEAAKMND AFGGSLTALPVIETQAGDVSAYIPTNVISITDQIFLET
 YKGI RPAINVGLSVSRVGSAAQTRAMKQVAGTMKLELAQYREVAFAQFGSDLDAATQQLSRGVRLTEL
 LKQGQYSPMAIEEQVAVIYAGVRGYLDKLEPSKITKFENAFLSHVVSQHQAALLGTIRADGKISEQSDAKL
 KEIVTNFLAGFEA

SGPTRTRPLE**QKLISEEDLA**ANDILDYKDDDDKV

Restriction Sites:

SgfI-RsrII

Cloning Scheme:



ACCN: NM_001001935

ORF Size: 1509 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_001001935.3](#)

RefSeq Size: 2000 bp

RefSeq ORF: 1512 bp

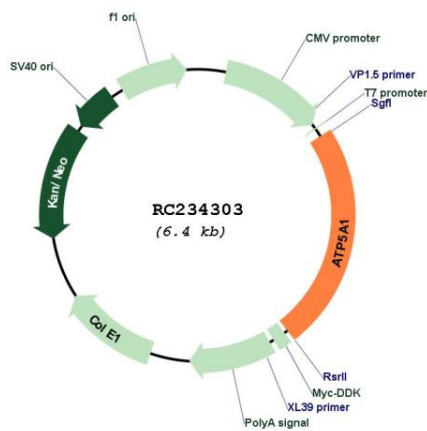
Locus ID: 498

UniProt ID: P25705

Cytogenetics: 18q21.1

Protein Families:	Druggable Genome
Protein Pathways:	Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW:	54.9 kDa
Gene Summary:	<p>This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, using an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. ATP synthase is composed of two linked multi-subunit complexes: the soluble catalytic core, F₁, and the membrane-spanning component, F_o, comprising the proton channel. The catalytic portion of mitochondrial ATP synthase consists of 5 different subunits (alpha, beta, gamma, delta, and epsilon) assembled with a stoichiometry of 3 alpha, 3 beta, and a single representative of the other 3. The proton channel consists of three main subunits (a, b, c). This gene encodes the alpha subunit of the catalytic core. Alternatively spliced transcript variants encoding the different isoforms have been identified. Pseudogenes of this gene are located on chromosomes 9, 2, and 16. [provided by RefSeq, Mar 2012]</p>

Product images:



Circular map for RC234303