

Product datasheet for **RC234365**

ATP5A (ATP5A1) (NM_001257334) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP5A (ATP5A1) (NM_001257334) 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)



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ORF Nucleotide Sequence:

>RC234365 representing NM_001257334
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGGATCGCC

ATGCTGTCCGTGCGCGTTGCTGCGGCCGTGGTCCGCGCCCTTCCTCGCGGGCCGGACTGGTCTCCAGAA
 ATGCTTTGGGTTTCATCTTTCATTGCTGCAAGGAACTTCCATGCCTCTAACACTCATCTTCAAAGACTGG
 GACTGCTGAGATGTCCTCTATTCTTGAAGAGCGTATTCTTGGAGCTGATACCTCTGTTGATCTTGAAGAA
 ACTGGGCGTGTCTTAAGTATTGGTGATGGTATTGCCCGCTACATGGGCTGAGGAATGTTCAAGCAGAAG
 AAATGGTAGAGTTTTCTCAGGCTTAAAGGGTATGTCCTTGAACCTGACAATGTTGGTGTGT
 CGTGTGGAAATGATAAACTAATTAAGGAAGGAGATATAGTGAAGAGGACAGGACCCATTGTGGACGGT
 CCAATTGGTTCCAAGACGCGTAGGCGAGTTGGTCTGAAAGCCCCCGGTATCATTCTCGAATTTCACTGC
 GGAACCAATGCAGACTGGCATTAAAGGCTGTGGATAGCTTGGTCCAATTGGTCGTGGTCAGCGTGAAC
 GATTATTGGTGACCGACAGACTGGGAAAACCTCAATTGCTATTGACACAATCATTAAACCAGAAACGTTTC
 AATGATGGATCTGATGAAAAGAAGAAGCTGACTGTATTATGTTGCTATTGGTCAAAGAGATCCACTG
 TTGCCAGTTGGTGAAGAGACTTACAGATGCAGATGCCATGAAGTACACCATTGTGGTGTCCGGTACGGC
 CTCGGATGCTGCCCACTTACGTACCTGGCTCCTTACTCTGGCTGTTCCATGGGAGAGTATTTTAGAGAC
 AATGGCAAACATGCTTTGATCATCTATGACGACTTATCCAAACAGGCTGTTGCTTACCGTCAGATGTCTC
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 CAGGCTGGTGATGTGTCTGCTTACATTCCAACAATGTCATTTCCATCACTGACGGACAGATCTTCTTGG
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 TCTCATGTGTCAGCCAGCACCAAGCCTTGTGGGCATATCAGGGCTGATGGAAGATCTCAGAACAAT
 CAGATGCAAAGCTGAAAGAGATTGTAACAAATTTCTGGCTGGATTTGAAGCT

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Protein Sequence:

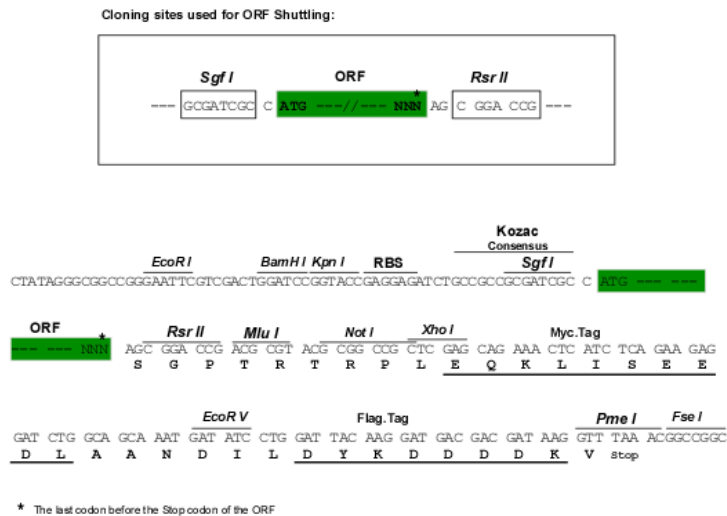
>RC234365 representing NM_001257334
 Red=Cloning site Green=Tags(s)

MLSVRVAADVRLPRRAGLVSRNALGSSFIAARNFHASNTHLQKTGTAEMSSILEERILGADTSVDLEE
 TGRVLSIGDGIARVHGLRNVQAEEMVEFSSGLKMSLNLEPDNVGVVVFNDKLIKEDIVKRTGAIVDG
 PIGSKTRRRVGLKAPGIIPRISVREPMQTGIKAVDSLVPPIGRQRELIIGDRQTGKTSIAIDTIIINQRF
 NDGSDEKKKLYCIYVAIGQKRSTVAQLVKRLTDADAMKYTIVVSATASDAAPLQYLAPYSGCSMGEYFRD
 NGKHALIIYDDLKQAVAYRQMSLLLRPPGREAYPGDVFYLSRLLERAAKMNDAFGGSLTALPVIET
 QAGDVSAYIPTNVISITDQIFLETELFYKIRPAINVGLSVSRVGSAAQTRAMKQVAGTMKLELAQYRE
 VAAFAQFGSDLDAATQQLSRGVRLELLKQGGYSPMAIEEQVAVIYAGVRYLDKLEPSKITKFENAF
 SHVVSQHALLGTIRADGKISEQSDAKLKEIVTNFLAGFEA

SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_001257334

ORF Size: 1593 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_001257334.2](#)

RefSeq Size: 1861 bp

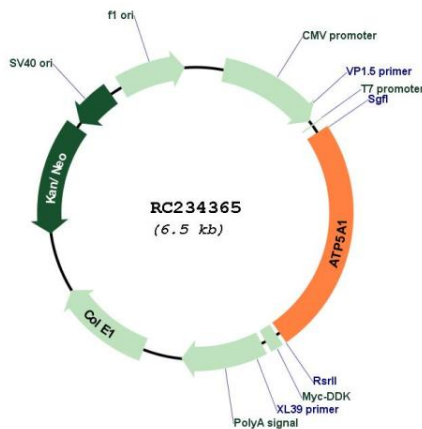
RefSeq ORF: 1596 bp

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:	58 kDa
Gene Summary:	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, F ₁ , 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]

Product images:



Circular map for RC234365