

Product datasheet for RC220908

ATP12A (NM_001676) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP12A (NM_001676) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP12A
Synonyms:	ATP1A1; H-K-ATPase; HK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220908 representing NM_001676 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCACCAGAAAACCCAGAAATTTACTCCGTGGAGCTCAGCGAACTAAGGACATCGTGAAAACAGACA
AGGGGGATGGCAAGGAGAAGTATAGGGGTCTGAAGAACAACCTGCCTGGAACCTCAAAAAGAAAAATCACAA
AGAGGAGTTTCAGAAAGAACTCCATCTGGATGACCACAACTCAGCAATAGGGAATTGGAAGAGAAATAT
GGCACAGACATCATTATGGTCTCTCCAGCACCAGAGCTGCCGAGCTCCTGGCCCGGGATGGCCCACT
CCCTCACCCCTCCAAGCAGACGCTGAGATCGTCAAGTTCCTCAAGCAGATGGTGGGGGGTTCTCTAT
CCTCCTGTGGGTGGCGCCTTTCTCTGTTGGATTGCATATGGGATTCAGTACTCCAGCGACAAGTCTGCA
TCCTGAACAACGTGTAATTGGGCTGTGTGCTTGGTCTGGTGGTCATTTAACGGGGATCTTTGCTTATT
ACCAAGAGGCAAAAAGCACCACATCATGTCCAGCTTCAATAAGATGATCCCTCAGCAAGCTCTCGTCAT
CCGAGATCCGAGAAGAAGACCATCCCTCAGAGCAGCTGGTGGTGGGGGACATTGTGGAGGTCAAAGGA
GGAGACCAGATCCCTGCAGACATCAGGGTGTGTCTTCTCAGGGGTGTCGGGTGGATAACTCATCTCTCA
CGGGGGAGTCTGAGCCCCAGCCCCGCTCCTCTGAGTTTACCCATGAAAACCCCTGGAACAAAGAACAT
CTGTTCTATCCACAACGTGTCTGGAAGCATCTACTCCCCTGTAGGCACTGTACCAGGATGGTTATC
AACACGGGTGACCGCACCATCATTGGCCATATTGCCTCATTGGCCTCAGGAGTTGGAATGAGAAGACGC
CCATTGCCATTGAGATCGAGCACTTTGTTACATTGTGGCAGGAGTGGCTGTCTCCATCGGCATCCCTTTT
CTTCATCATCGTGTGTCCCTGAAGTATCAAGTCTGGACTCCATCATCTTCTCATTGGCATCATTGTG
GCCAATGTGCCGAGGGCCTCCTGGCCACTGTCACTGTGACCCTGTGCTGACAGCAAAACGGATGGCCA
AGAAGAACTGCCTGGTGAAGAACCTGGAGGCTGTGGAGACCCTCGGCTCCACCTCCATCATCTGCTCGGA
CAAGACTGGGACTGACCCAGAACAGGATGACAGTGGCCATCTGTGGTTCGACAATCAGATCTTTGTG
GCTGACACCAGTGAGGACATTCAAACCAAGTCTTTGACCAAAGCTCTAGGACTTGGGCCTCCTTATCCA
AGATAATAACATTGTGTAACCGAGCAGAGTTCAAGCCAGGACAGGAAAATGTCCCATCATGAAGAAAGC
TGTGATTGGAGATGCCTCAGAACTGCTCTTTAAAATTCTCAGAGGTCATTTGGGTGATGTGATGAA



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ATTAGAAAAGAAACCGCAAAGTAGCTGAAATCCCTTTAACTCTACTAATAAATTCAGCTCTCCATCC
 ACGAGATGGATGACCCCCACGGCAAGCGCTTCTCATGGTATGAAGGGGGCCCCGAGCGCATTCTAGA
 GAAATGCAGCACCATCATGATCAACGGCGAGGAGCACCCTGGACAAGAGCACTGCCAAGACCTCCAC
 ACAGCCTACATGGAGCTGGGCGGGTGGGCGAGCGTGTCTGGGTTTCTGTCATCTACCTGCCAGCAG
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 GGGACTCTGTCAATGATCGATCCCCCTCGTCCACCGTGCCAGATGCAGTCACCAAAATGCCGGAGTGCA
 GGGATCAAGGTTATTATGGTTACTGGTATCATCCCATCACAGCCAAAGCTATTGCCAAGAGTGTGGGA
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 CAAACGGGATGCCAAGGCCGCTGTGGTACTGGCATGGAGCTGAAGGACATGAGCTCAGAACAGCTGGAT
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 AGGGCTGTGAGAGCAGGATGCTGTTGTTGCTGTGACCGGGATGGAGTTAATGACTCTCCGGCTTAAA
 GAAGGCAGACATTGGGATTGCCATGGGGATAGCAGGTTCTGATGCAGCCAAAAATGCAGCCGACATGGTC
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 ATTGCTTGGCGTACGAGAAAGCTGAAAGTGACATCATGAACAGGAAGCCTCGCCACAAGAAATAAGGACA
 GGCTGGTGAACCAGCCGCTCGTGTGACTCATACCTGCACATTGGCCTCATGAAGCCCTGGGAGCTTT
 CCTTGTGATTTACCGTCTATGCACAAGAGGGCTTTCTGCCCGCACTCTATTAACCTGCGGGTAGAA
 TGGGAGAAGGACTACGTGAATGACTTGAAGACAGCTATGGGCAGGAATGGACAAGGTACCAGAGGGAA
 ACCTAGAATGGACGGGTACACGGCTTTCTTTGTTGGCATCTAGTCCAGCAAATAGCAGATCTGATCAT
 CAGGAAAACCCGGAGGAATCCATCTCCAGCAGGGTCTCTTTCAGAAATAAAGTCATCTGGGTGGGGATC
 ACCTCACAGATCATCATTGGTCTGATCCTCTCCTATGGCCTCGGAAGTGCACAGCCTTGAGTTTACCA
 TGCTTAGGGCTCAGTACTGGTTTGTGGCTGTGCCGACGCCATCCTGATCTGGGTGATGATGAGGTGCG
 GAAGCTTTCATCAGGCTCTACCCTGGAAGCTGGTGGGATAAGAACATGTATTAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220908 representing NM_001676

Red=Cloning site Green=Tags(s)

MHQKTPPEIYSVELSGTKDIVKTDKGDGKEKYRGLKNNCLELKKKNHKEEFQKELHLDHKL SNRELEEKY
 GTDIIMGLSSTRAAELLARDGPNSLTPPKQTPEIVKFLKQMVGGFSILLWVGAFLCWIAYGIQYSSDKSA
 SLNNVYLGCVLGLVVILTGIFAYYQEAQSTNIMSSFNMIPQQALVIRDSEKKTIPSEQLVVDIIVEVKG
 GDQIPADIRVLSQGCVRDSSLTGESEPPRSSEFTHENPLETKNICFYSTTLEASTSPVGTVTGMVI
 NTGDRTIIGHIASLASGVGNEKTPIAIEIEHFVHIVAGVAVSIGILFFIIAVSLKYQVLDSIIFLIGIIV
 ANVPEGLLATVTVLTLTAKRMAKKNCLVKNLEAVETLGSTSIICSDKTGTLTQNRMTVAHLWFDNQIFV
 ADTSEDHSNQVFDQSSRTWASLSKIITLCNRAEFKPGQENVPIMKKAVIGDASETALLKFSEVILGDVME
 IRKRNRKVAEIPFNSTNKFQLSIHEMDDPHGKRFMLVMKGAPERILEKSTIMINGEEHPLDKSTAKTFH
 TAYMELGGLGERVLGFCHLYLPADEFPEYTFDIDAMNFPTSNLCFVGLLSMIDPPRSTVPDAVTKCRSA
 GIKVIMVTDGHPITAKAIAKSVGIIISANSETVEDIAHRLNIAVEQVNRDAAAVVTGMELKDMSSQLD
 EILANYQEIVFARTSPQQKLIIVEGCQRQDAVVAVTGDGVNDSPALKKADIGIAMGIAGSAAKNAADMV
 LLDDNFASIVTGVEEGRIFDNLKKTIAYSLTKNIAELCPFLIYIIVGLPLPIGTITILFIDLGTDIIPS
 IALAYEKAESDIMNRKPRHKNKDRLVNQPLAVYSYLHIGLMQALGAFLVYFTVYAQEGFLPRTLINLRVE
 WEKDYVNDLKDSYGQEWTRYQREYLEWTGYTAFVVGILVQIADLIIRKTRRNSIFQQGLFRNKVIWVGI
 TSQIIIGLILSYGLGSVTALSFTMLRAQYWFVAVPHAILIWVYDEVKRLFIRLYPGSWWDKNMYY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6168_e11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001676

ORF Size: 3135 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_001676.3](#), [NP_001667.3](#)

RefSeq Size: 3594 bp

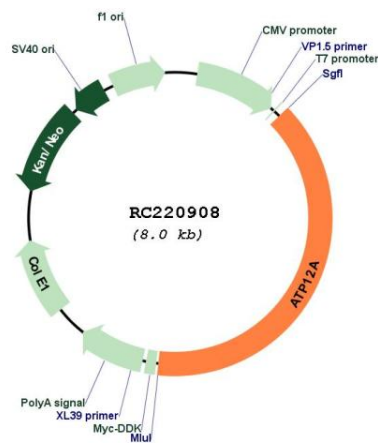
RefSeq ORF: 3120 bp

Locus ID: 479

UniProt ID: [P54707](#)

Cytogenetics:	13q12.1-q12.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Oxidative phosphorylation
MW:	115.3 kDa
Gene Summary:	The protein encoded by this gene belongs to the family of P-type cation transport ATPases. This gene encodes a catalytic subunit of the ouabain-sensitive H ⁺ /K ⁺ -ATPase that catalyzes the hydrolysis of ATP coupled with the exchange of H ⁽⁺⁾ and K ⁽⁺⁾ ions across the plasma membrane. It is also responsible for potassium absorption in various tissues. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010]

Product images:



Circular map for RC220908