

Product datasheet for **RC230888**

ATP12A (NM_001185085) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP12A (NM_001185085) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP12A
Synonyms:	ATP1AL1; H-K-ATPase; HK
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC230888 representing NM_001185085 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCACCAGAAAACCCAGAAATTTACTCCGTGGAGCTCAGCGGAACTAAGGACATCGTGAAAACAGACA
AGGGGGATGGCAAGGAGAAGTATAGGGGTCTGAAGAACAACCTGCCTGGAACCTCAAAAAGAAAAATCACAA
AGAGGAGTTTCAGAAAGAACTCCATCTGGATGACCACAACTCAGCAATAGGGAATTGGAAGAGAAATAT
GGCACAGACATCATTATGGGTCTCTCCAGCACCAGAGCTGCCGAGCTCCTGGCCCGGGATGGGCCAACT
CCCTCACCCCTCCAAGCAGACGCTGAGATCGTCAAGTTCTCAAGCAGATGGTGGGGGGTTCTCTAT
CCTCCTGTGGGTGGGCGCTTTCTCTGTTGGATTGCATATGGGATTCACTCCAGCGACAAGTCTGCA
TCCCTGAACAACGTGTACTTGGGCTGTGTGCTTGGTCTGGTGGTCAATTTAACGGGGATCTTTGCTTATT
ACCAAGAGGCAAAAAGCACCAACATCATGTCCAGCTTCAATAAGATGATCCCTCAGCAAGCTCTCGTCAT
CCGAGATCCGAGAAGAAGACCATCCCTCAGAGCAGCTGGTGGTGGGGGACATTGTGGAGGTCAAAGGA
GGAGACCAGATCCCTGCAGACATCAGGGTGTCTTCTCAGGGGTGTCGGGTGGATAAATCATCTCTCA
CGGGGGAGTCTGAGCCCCAGCCCCCTCCTCTGAGTTTACCCATGAAAACCCCTGAAAACAAAGAACAT
CTGCTTCTATTCCACAAGTGTCTGGAAGCATCTACTTCCCCTGTAGGCACTGTCACCGCATGGTTATC
AACACGGGTGACCGCACCATCATTGGCCATATTGCCTCATTGGCCTCAGGAGTTGAAAATGAGAAGCGC
CCATTGCCATTGAGATCGAGCACTTTGTTACATTGTGGCAGGAGTGGCTGTCTCCATCGGCATCCTTTT
CTTCATCATCGTGTGTCCCTGAAGTATCAAGTCTGGACTCCATCATCTTCTCATTGGCATCATTGTG
GCCAATGTGCCGAGGGCCTCCTGGCCACTGCACTGTGACCCTGTGCTGACAGCAAACGGATGGCCA
AGAAGAACTGCCTGGTGAAGAACCTGGAGGCTGTGGAGACCTCGGCTCCACCTCCATCATCTGCTCGGA
CAAGACTGGGACTGACCCAGAACAGGATGACAGTGGCCATCTGTGGTTCGACAATCAGATCTTTGTG
GCTGACACCAGTGAGGACCATCAAACCAAGTCTTTGACCAAGCTCTAGGACTTGGCCCTCCTTATCCA
AGATAATAACATTGTGTAAACCGAGCAGAGTTCAAGCCAGGACAGGAAAATGTCCCATCATGAAGAAAGC
TGTGATTGGAGATGCCTCAGAACTGCTTTTTAAATTTCTCAGAGGTCATTTGGGTGATGTGATGGAA
ATTAGAAAAGAAACCGCAAAGTAGCTGAAATCCCTTTTAACTCTACTAATAAATTTAGCTCTCCATCC



ACGAGATGGATGACCCCCACGGCAAGCGCTTCCTCATGGTGATGAAGGGGGCCCCCTGAGCGCATTCTAGA
 GAAATGCAGCACCATCATGATCAACGGCGAGGAGCACCCTGGACAAGAGCACTGCCAAGACCTCCAC
 ACAGCCTACATGGAGCTGGGCGGGTGGGCGAGCGTGTGCTGGGTTTCTGTATCTCTACCTGCCAGCAG
 ACGAGTTTCCAGAAACCTACTCATTGACATAGACGCTATGAACCTTCCGACCTCCAACCTCTGTTTTGT
 GGGACTCTGTCAATGATCGATCCCCCTCGGTCCACCGTGCCAGATGCAGTCACCAAATGCCGGAGTGCA
 GGGATCAAGGTTATTATGGTTACTGGTGATCATCCATCACAGCCAAAGCTATTGCCAAGAGTGTGGGA
 TCAATTCAGCCAACAGTAAAACAGTGAAGACATTGCACATCGCCTCAACATTGCTGTGGAGCAAGTTAA
 CAAACGGGATGCCAAGGCCGCTGTGGTGAAGTGGCATGGAGCTGAAGGACATGAGCTCAGAACAGCTGGAT
 GAGATCTTAGCCAACTACCAGGAGATTGCTTTGCCCGGACATCCCCCAGCAGAAGCTGATCATTGTGG
 AGGGCTGTGAGAGCAGGATGCTGTTGTTGCTGTGACCGGGATGGAGTTAATGACTCTCCGGCTTAAA
 GAAGGCAGACATTGGGATTGCCATGGGGATAGCAGGTTCTGATGCAGCCAAAAATGCAGCCGACATGGTC
 TTGCTGGACGACAACCTCGCATCCATCGTCACAGGGGTGGAGGAAGTGCCTGATCTTTGACAACCTCA
 AGAAGACTATTGCTTATCCCTGACCAAGAACATTGCCGAGCTGTGCCCTTTCTGATCTACATCATTGT
 CGGGCTCCCCCTGCCATTGGCACCATCACCATTCTGTTCACTTGGGGACAGACATTATCCCCTCC
 ATTGCTTGGCGTACGAGAAAGTGAAAGTGACATCATGAACAGGAAGCCTCGCCACAAGATAAGGACA
 GGCTGGTGAACCGCCGCTCGCTGTGACTCATACCTGCACATTGGCCTCATGCAAGCCCTGGGAGCTTT
 CCTTGTGATTTACCGTCTATGCACAAGAGGGCTTTCTGCCCGCACTCTCATTAACTGCGGGTAGAA
 TGGGAGAAGGACTACGTGAATGACTTGAAGACAGCTATGGGCAGGAATGGACAAGGTACCAGAGGGAA
 ACCTAGAATGGACGGGCTACACGGCTTTCTTTGTTGGCATCCTAGTCCAGCAATAGCAGATCTGATCAT
 CAGGAAAACCCGGAGGAATCCATCTCCAGCAGGGTCTCTTCCAGAAATAAAGTCACTGGGTGGGGATC
 ACCTCACAGATCATCATTGGTCTGATCCTCTCCTATGGCCTCGGAAGTGTACAGCCTTGAGTTTACCA
 TGCTTAGGGCTCAGTACTGGTTGTGGCTGTGCCGCACCCATCCTGATCTGGGTGATGATGAGGTGCC
 GAAGCTTTCATCAGGCTCTACCCTGGAAGCTGGTGGGATAAAGCATGTATTAT

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230888 representing NM_001185085
 Red=Cloning site Green=Tags(s)

MHQKTPPEIYSVELSGTKDIVKTDKGDGKEKYRGLKNNCLELKKKNHKEEFQKELHLDDHKL SNRELEEKY
 GTDIIMGLSSTRAAELLARDGPNLTPPKQTPEIVKFLKQMVGGFSILLWVGAFLCWIAYGIQYSSDKSA
 SLNNVYLGCVLGLVVILTGIFAYYQEAKSTNIMSSFNKMIPQQALVIRDSEKKTIPSEQLVVDIIVEVKG
 GDQIPADIRVLSQGCGRVDNSSLTGESEPQRSSEFTHENPLETKNICFYSTTCL EASTSPVGTVTGMVI
 NTGDRTIIGHIASLASGVGNEKTPIAIEIEHFVHIVAGVAVSIGILFFIIAVSLKYQVLDSIIFLIGIIV
 ANVPEGLLATVTVTL SL TAKRMAKKNCLVKNLEAVETLGSTSIICSDKTGTLTQNRMTVAHLWFDNQIFV
 ADTSEDHSNQVFDQSSRTWASLSKIITLCNRAEFKPGQENVPIMKKAVIGDASETALLKFSEVILGDVME
 IRKRNKVAEIPFNSTNKFQLSIHEMDDPHGKRFLMVMKGAPERILEKSTIMINGEEHPLDKSTAKTFH
 TAYMELGGLGERVLGFCHLYLPADEFPEYTFDIDAMNFPSTNLCFVGLLSMIDPPRSTVPDAVTKCRSA
 GIKVIMVTDGHPITAKAIAKSVGII SANSETVEDIAHRLNIAVEQVNRDACA AVVTGMELKDMSSQLD
 EILANYQEIVFARTSPQQLIIVEGCQRQDAVVAVTGDGVNDSPALKKADIGIAMGIAGSDAAKNAADMV
 LLDDNFASIVTGVVEEGLIFDNLKKTIAYSLTKNIAELCPFLIYIIVGLPLPIGTITILFIDLGTDIIPS
 IALAYEKAESDIMNRKPRHKNKDRLVNQPLAVYSYLHIGLMQALGAFVYFTVYAQEGFLPRTLINLRVE
 WEKDYVNDLKDSYGQEWTRYQREYLEWTGYTAFVGVILVQIADLIIRKTRRNSIFQQGLFRNKVIWVGI
 TSQIIIGLILSYGLGSVTALSFTMLRAQYWFVAVPHAILIWVYDEVKRLFIRLYPGSWWDKNMYY

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

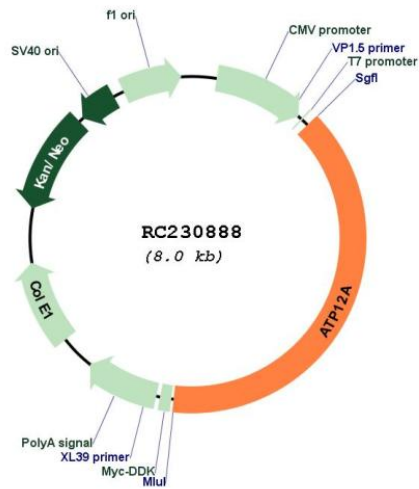
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001185085

ORF Size: 3135 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
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:	<p>NM_001185085.1, NP_001172014.1</p>
RefSeq ORF:	<p>3138 bp</p>
Locus ID:	<p>479</p>
UniProt ID:	<p>P54707</p>
Cytogenetics:	<p>13q12.1-q12.3</p>
Protein Families:	<p>Druggable Genome, Transmembrane</p>
Protein Pathways:	<p>Oxidative phosphorylation</p>
MW:	<p>116.5 kDa</p>
Gene Summary:	<p>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]</p>