

Product datasheet for **RG220908**

ATP12A (NM_001676) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATP12A (NM_001676) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: ATP12A
Synonyms: ATP1A1; H-K-ATPase; HK
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG220908 representing NM_001676
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCACCAGAAAACCCAGAAATTTACTCCGTGGAGCTCAGCGAACTAAGGACATCGTGAAAACAGACA
 AGGGGGATGGCAAGGAGAAGTATAGGGGTCTGAAGAACAACCTGCCTGGAACCTCAAAAAGAAAAATCACAA
 AGAGGAGTTTCAGAAAGAACTCCATCTGGATGACCACAACTCAGCAATAGGGAATTGGAAGAGAAATAT
 GGCACAGACATCATTATGGTCTCTCCAGCACCAGAGCTGCCGAGCTCCTGGCCCGGGATGGCCCACT
 CCCTCACCCCTCCAAGCAGACGCTGAGATCGTCAAGTTCCTCAAGCAGATGGTGGGGGGTTCTCTAT
 CCTCCTGTGGGTGGCGCCTTTCTCTGTTGGATTGCATATGGGATTCAGTACTCCAGCGACAAGTCTGCA
 TCCTGAACAACGTGTAATTGGGCTGTGTGCTTGGTCTGGTGGTCAATTTAACGGGGATCTTTGCTTATT
 ACCAAGAGGCAAAAAGCACCACATCATGTCCAGCTTCAATAAGATGATCCCTCAGCAAGCTCTCGTCAT
 CCGAGATCCGAGAAGAAGACCATCCCTCAGAGCAGCTGGTGGTGGGGGACATTGTGGAGGTCAAAGGA
 GGAGACCAGATCCCTGCAGACATCAGGGTGTGTCTTCTCAGGGGTGTCGGGTGGATAACTCATCTCTCA
 CGGGGGAGTCTGAGCCCCAGCCCCGCTCCTCTGAGTTTACCCATGAAAACCCCTGGAAACAAAGAACAT
 CTGTTCTATTCCACAACGTGTCTGGAAGCATCTACTCCCCTGTAGGCACTGTACCAGGATGGTTATC
 AACACGGGTGACCGCACCATCATTGGCCATATTGCCTCATTGGCCTCAGGAGTTGGAAATGAGAAGACGC
 CCATTGCCATTGAGATCGAGCACTTTGTTACATTGTGGCAGGAGTGGCTGTCTCCATCGGCATCCCTTTT
 CTTTCATCATCGCTGTGTCCCTGAAGTATCAAGTCTGGACTCCATCATCTTCTCATTGGCATCATTGTG
 GCCAATGTGCCGAGGGCCTCCTGGCCACTGTCACTGTGACCCTGTGCTGACAGCAAAACGGATGGCCA
 AGAAGAACTGCCTGGTGAAGAACCTGGAGGCTGTGGAGACCCCGCTCCACCTCCATCATCTGCTCGGA
 CAAGACTGGGACACTGACCCAGAACAGGATGACAGTGGCCATCTGTGGTTCGACAATCAGATCTTTGTG
 GCTGACACCAGTGAAGACATTCAAACCAAGTCTTTGACCAAAGCTCTAGGACTTGGGCCTCCTTATCCA
 AGATAATAACATTGTGTAACCGAGCAGAGTTCAAGCCAGGACAGGAAAATGTCCCATCATGAAGAAAGC
 TGTGATTGGAGATGCCTCAGAACTGCTCTTTAAAATTCTCAGAGGTCATTTGGGTGATGTGATGAA



[View online >](#)

ATTAGAAAAGAAACCGCAAAGTAGCTGAAATCCCTTTAACTCTACTAATAAATTCAGCTCTCCATCC
 ACGAGATGGATGACCCCCACGGCAAGCGCTTCTCATGGTATGAAGGGGGCCCCGAGCGCATTCTAGA
 GAAATGCAGCACCATCATGATCAACGGCGAGGAGCACCCTGGACAAGAGCACTGCCAAGACCTCCAC
 ACAGCCTACATGGAGCTGGGCGGGTGGGCGAGCGTGTGCTGGGTTTCTGTCATCTCTACCTGCCAGCAG
 ACGAGTTTCCAGAAACCTACTCATTGACATAGACGCTATGAACCTCCGACCTCCAACCTCTGTTTTGT
 GGGACTCTGTCAATGATCGATCCCCCTCGTCCACCGTGCCAGATGCAGTCACCAAAATGCCGAGTGCA
 GGGATCAAGGTTATTATGGTTACTGGTATCATCCCATCACAGCCAAAGCTATTGCCAAGAGTGTGGGGA
 TCAATTCAGCCAACAGTAAACAGTGAAGACATTGCACATCGCCTCAACATTGCTGTGGAGCAAGTTAA
 CAAACGGGATGCCAAGGCCGCTGTGGTACTGGCATGGAGCTGAAGGACATGAGCTCAGAACAGCTGGAT
 GAGATCTTAGCCAACTACCAGGAGATTGCTTTGCCCGGACATCCCCCAGCAGAAGCTGATCATTGTGG
 AGGGCTGTGAGAGCAGGATGCTGTTGTTGCTGTGACCGGGATGGAGTTAATGACTCTCCGGCTCTAAA
 GAAGGCAGACATTGGGATTGCCATGGGGATAGCAGGTTCTGATGCAGCCAAAAATGCAGCCGACATGGTC
 TTGCTGGACGACAACCTCGCATCCATCGTCACAGGGGTGGAGGAAGGTCGCTGATCTTTGACAACCTCA
 AGAAGACTATTGCTTATCCCTGACCAAGAACATTGCCGAGCTGTGCCCTTTCTGATCTACATCATTGT
 CGGGCTCCCCCTGCCATTGGCACCATCACCATTCTGTTCACTTGGGGACAGACATTATCCCCTCC
 ATTGCTTGGCGTACGAGAAAGCTGAAAGTGACATCATGAACAGGAAGCCTCGCCACAAGAAATAAGGACA
 GGCTGGTGAACCAGCCGCTCGTGTGACTCATACCTGCACATTGGCCTCATGCAAGCCCTGGGAGCTTT
 CCTTGTGATTTACCGTCTATGCACAAGAGGGCTTTCTGCCCGCACTCTCATTAACTGCGGGTAGAA
 TGGGAGAAGGACTACGTGAATGACTTGAAGACAGCTATGGGCAGGAATGGACAAGGTACCAGAGGGAA
 ACCTAGAATGGACGGGTACACGGCTTTCTTTGTTGGCATCCTAGTCCAGCAAATAGCAGATCTGATCAT
 CAGGAAAACCCGGAGGAATCCATCTCCAGCAGGGTCTCTTTCAGAAATAAAGTCATCTGGGTGGGGATC
 ACCTCACAGATCATCATTGGTCTGATCCTCTCCTATGGCTCGGAAGTGTACAGCCTTGAGTTTACCA
 TGCTTAGGGCTCAGTACTGGTTTGTGGCTGTGCCGACGCCATCCTGATCTGGGTGATGATGAGGTGCG
 GAAGCTTTCATCAGGCTCTACCCTGGAAGCTGGTGGGATAAGAACATGTATTAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG220908 representing NM_001676
 Red=Cloning site Green=Tags(s)

MHQKTPPEIYSVELSGTKDIVKTDKGDGKEKYRGLKNNCLELKKKNHKEEFQKELHLDDHKL SNRELEEKY
 GTDIIMGLSSTRAAELLARDGPNLTPPKQTPEIVKFLKQMVGGFSILLWVGAFLCWIAYGIQYSSDKSA
 SLNNVYLGCVLGLVVILTGIFAYYQEAKSTNIMSSFNMIPQQALVIRDSEKKTIPSEQLVVDIIVEVKG
 GDQIPADIRVLSQGCVRDSSLTGESEPQRSSEFTHENPLETKNICFYSTTCLFASTSPVGTVTGMVI
 NTGDRTIIGHIASLASGVGNEKTPIAIEIEHFVHIVAGVAVSIGILFFIIAVSLKYQVLDSIIFLIGIIV
 ANVPEGLLATVTVLSTAKRMAKKNCLVKNLEAVETLSTSIICSDKTGTLTQNRMTVAHLWFDNQIFV
 ADTSEDHSNQVFDQSSRTWASLSKIITLCNRAEFKPGQENVPIMKKAVIGDASETALLKFSEVILGDVME
 IRKRNKVAEIPFNSTNKFQLSIHEMDDPHGKRFMLVMKGAPEILEKSTIMINGEEHPLDKSTAKTFH
 TAYMELGGLGERVLGFCHLYLPADEFPEYTFDIDAMNFPSTNLFCVGLLSMIDPPRSTVPDAVTKCRSA
 GIKVIMVTDGHPITAKAIAKSVGIIISANSETVEDIAHRLNIAVEQVNRDAKAAVVTGMELKDMSSQLD
 EILANYQEIVFARTSPQQKLIIVEGCQRQDAVVAVTGDGVNDSPALKKADIGIAMGIAGSAAKNAADMV
 LLDDNFASIVTGVVEEGLIFDNLKKTIAVSLTKNIAELCPFLIYIIVGLPLPIGTITILFIDLGTDIIPS
 IALAYEKAESDIMNRKPRHKNKDRLVNQPLAVYSYLHIGLMQALGAFVYFTVYAQEGFLPRTLINLRVE
 WEKDYVNDLKDSYGQEWTRYQREYLEWTGYTAFVVGILVQQAIDLIIIRKTRRNSIFQQGLFRNKVIWVGI
 TSQIIIGLILSYGLGSVTALSFTMLRAQYWFVAVPHAILIWVYDEVKRLFIRLYPGSWWDKNMYY

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

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.

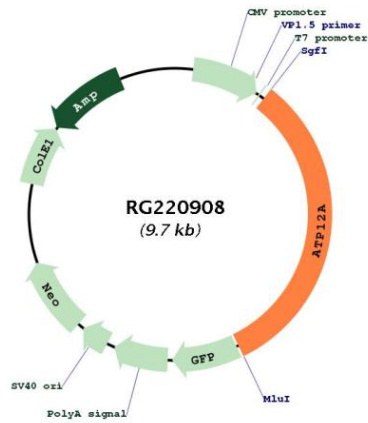
RefSeq: [NM_001676.3](#), [NP_001667.3](#)

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
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 RG220908