

## Product datasheet for **SC321721**

### ATP1A4 (NM\_001001734) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** ATP1A4 (NM\_001001734) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** ATP1A4  
**Synonyms:** ATP1A1; ATP1AL2  
**Mammalian Cell Selection:** None  
**Vector:** pCMV6-XL5  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_001001734.1  
GAAGCTCACTCCGCTCCTCACTCACTGCATTTCCACCTTCCGTGGGCCTTGGCGG  
ATCTTCATCACTGAGGCACCTGGTTACTCTTACCTCTTGTTCCTGCCCTCACTGCATT  
CCCTCACCTCTACCTTTTTATCCTTCCACCCTAGGCTTCTCTCCCTCCTTCCCTCACT  
CCTGACTTTCCTTCCAGCGGACGGCTGGAGGACCGCTCAGTCTCTCTCTCACT  
TCCCTTCTCTCTCACCTTACCACCCAACCTCCCTCCCTGCCTTTTCTTCTGC  
TCCCTCATTCTCTCCCCACCACTCTTCTCGTGGCCCCCTTGCCTGCGCGCCCTTTCC  
CTTCCCCCTTGCCTCACTCTCTCAGCTTTCTTCCACAGTTGAGCTCGGGCAGCTTTTCT  
GGGGATAGCTATGGGGCTTTGGGGGAAGAAAGGGACAGTGGCTCCCCATGACCAGAGTCC  
AAGACGAAGACCTAAAAAAGGGCTTATCAAGAAAAAATGGTGAAGAGGGAAAAACAGAA  
GCGCAATATGGAGGAAGTGAAGAAGGAAGTGGTCAATGGATGATCACAATAACCTTGGAA  
AGAGCTGAGCACCAAGTACTCCGTGGACCTGACAAAGGGCCATAGCCACCAAGGGCAAA  
GGAAATCCTGACTCGAGGTGGACCAATACTGTTACCCACCCCACTCCAGAAATG  
GGTCAAATTCTGTAAGCAACTGTTCCGGAGGCTTCTCCCTCCTACTATGGACTGGGGCCAT  
TCTCTGCTTTGTGGCCTACAGCATCCAGATATATTTCAATGAGGAGCCTACCAAAGACAA  
CCTCTACCTGAGCATCGTACTGTCCGTGGTGCATCGTCACTGGCTGCTTCTCTATTA  
TCAGGAGGCCAAGAGCTCCAAGATCATGGAGTCTTTAAGAACATGGTGCCTCAGCAAGC  
TCTGGTAATTGAGGAGGAGAGAAGATGCAAATTAATGTACAAGAGGTGGTGGTGGGAGA  
CCTGGTGGAAATCAAGGGTGGAGACCGAGTCCCTGCTGACCTCCGGCTTATCTGCACA  
AGGATGTAAGGTGGACAACCTCATCCTTGACTGGGGAGTCAAGAACCCAGAGCCGCTCCCC  
TGACTTACCCATGAGAACCCTCTGGAGACCCGAAACATCTGCTTCTTTTCCACCAACTG  
TGTGGAAGGAACCGCCGGGATTGTGATTGCTACGGGAGACTCCACAGTATGGGCAG  
AATTGCCTCCCTGACGTGAGCCTGGCGTTGGCCAGACACCTATCGCTGCTGAGATCGA  
ACACTTCACTCCATCTGATCACTGTGGTGGCCGTCTTCTTGGTGTCACTTTTTTGGCGCT  
CTCACTTCTTGGGCTATGGTTGGCTGGAGGCTATCATTTTTCTATTGGCATCATTGT  
GGCCAATGTGCCTGAGGGGCTGTGGCTACAGTCACTGTGTGCCTGACCCTCACAGCCAA  
GCGCATGGCACGAAGAAGTGCCTGGTGAAGAAGTGGAGGCGGTGGAGACGCTGGGCTC



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CACGTCCACCATCTGCTCAGACAAGACGGGCACCCTCACCCAGAACCGCATGACCGTCGC  
 CCACATGTGGTTTATATGACCGTGTATGAGGCCGACACCACTGAAGAACAGACTGGAAA  
 AACATTTACCAAGAGCTCTGATACCTGGTTTATGCTGGCCGAATCGCTGGCCTCTGCAA  
 CCGGGCTGACTTTAAGGCTAATCAGGAGATCCTGCCATTGCTAAGAGGGCCACAACAGG  
 TGATGCTCCGAGTCAGCCCTCCTCAAGTTCATCGAGCAGTCTTACAGCTCTGTGGCGGA  
 GATGAGAGAGAAAAACCCAAGGTGGCAGAGATTCCCTTAAATTCTACCAACAAGTACCA  
 GATGTCCATCCACCTTCGGGAGGACAGCTCCAGACCCACGTAAGTATGATGAAGGGTGC  
 TCCGGAGAGGATCTGGAGTTTTGTTCTACCTTTCTTCTGAATGGGCAGGAGTACTCAAT  
 GAACGATGAAATGAAGGAAGCCTTCCAAAATGCCTATTTAGAAGTGGGAGGTCTGGGGGA  
 ACGTGTGCTAGGCTTCTGCTTCTGAATCTGCCTAGCAGCTTCTCCAAGGGATTCCCAT  
 TAATACAGATGAAATAAATTTCCCATGGACAACCTTTGTTTTGTGGCCTCATATCCAT  
 GATTGACCCTCCCGAGCTGCAGTGCCTGATGCTGTGAGCAAGTGTGCGAGTGCAGGAAT  
 TAAGGTGATCATGGTAACAGGAGATCATCCATTACAGCTAAGGCCATTGCCAAGGGTGT  
 GGGCATCATCTCAGAAGGCACTGAGACGGCAGAGGAAGTCGCTGCCCGGCTTAAGATCCC  
 TATCAGCAAGGTGATGCCAGTGTGCCAAGCCATTGTGGTGCATGGTGCAGAAGTAA  
 GGACATACAGTCCAAGCAGCTTATCAGATCCTCCAGAACCACCTGAGATCGTGTTTGC  
 TCGGACCTCCCCTCAGCAGAAGCTCATATTGTCGAGGGATGTCAGAGGCTGGGAGCCGT  
 TGTGGCCGTGACAGGTGACGGGGTGAACGACTCCCCTGCGCTGAAGAAGGCTGACATTGG  
 CATTGCCATGGGCATCTCTGGCTCTGACGTCTTAAGCAGGCAGCCGACATGATCCTGCT  
 GGATGACAACCTTGCCTCCATCGTCACGGGGTGGAGGAGGGCCGCTGATCTTTGACAA  
 CCTGAAGAAATCCATCATGTACACCCTGACCAGCAACATCCCCGAGATCACGCCCTTCT  
 GATGTTTCATCATCCTCGGTATACCCCTGCCTCTGGGAACCATAACCATCCTCTGCATTGA  
 TCTCGGCACTGACATGGTCCCTGCCATCTCCTTGGCTTATGAGTCAGTAAAAGCGACAT  
 CATGAAGAGGCTTCCAAGGAACCCAAAGACGGATAATCTGGTGAACACCGTCTCATTGG  
 CATGGCCTATGGACAGATTGGGATGATCCAGGCTCTGGCTGGATTCTTTACCTACTTTGT  
 AATCCTGGCTGAGAATGGTTTTAGGCCTGTTGATCTGCTGGGCATCCGCCTCCACTGGGA  
 AGATAAATACTTGAATGACCTGGAGGACAGCTACGGACAGCAGTGGACCTATGAGCAACG  
 AAAAGTTGTGGAGTTCACATGCCAAACGGCCTTTTTTGTACCATCGTGGTTGTGCAGTG  
 GGCGGATCTCATCTCCAAGACTCGCCGCAACTCACTTTTCCAGCAGGGCATGAGAAA  
 CAAAGTCTTAATATTTGGGATCCTGGAGGAGACTCTTGGCTGCATTTCTGTCTACAC  
 TCCAGGCATGGACGTGGCCCTGCGAATGTACCCACTCAAGATAACCTGGTGGCTCTGTGC  
 CATTCCCTACAGTATTCTCATCTTCGTCTATGATGAAATCAGAAAACCTCCTCATCCGTCA  
 GCACCCGATGGCTGGTGGAAAGGGAGACGTACTACTAACTCAGCAGATGAAGAGCTT  
 CATGTGACACAGGGGTGTTGTGAGAAGTGGGATGGGGCCAGAGATTATAAGTTTGACACA  
 ACAAAAAAAAAAAAAAAAAA

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_001001734

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:**

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_001001734.1](#), [NP\\_001001734.1](#)

**RefSeq Size:** 951 bp

**RefSeq ORF:** 498 bp

**Locus ID:** 480

**UniProt ID:** [Q13733](#)

**Cytogenetics:** 1q23.2

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Cardiac muscle contraction

**Gene Summary:** The protein encoded by this gene belongs to the family of P-type cation transport ATPases, and to the subfamily of Na<sup>+</sup>/K<sup>+</sup> -ATPases. Na<sup>+</sup>/K<sup>+</sup> -ATPase is an integral membrane protein responsible for establishing and maintaining the electrochemical gradients of Na and K ions across the plasma membrane. These gradients are essential for osmoregulation, for sodium-coupled transport of a variety of organic and inorganic molecules, and for electrical excitability of nerve and muscle. This enzyme is composed of two subunits, a large catalytic subunit (alpha) and a smaller glycoprotein subunit (beta). The catalytic subunit of Na<sup>+</sup>/K<sup>+</sup> -ATPase is encoded by multiple genes. This gene encodes an alpha 4 subunit. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) contains a distinct 5' UTR and lacks an in-frame portion of the 5' coding region, compared to variant 1. The resulting isoform (2), which has not been experimentally confirmed, has a shorter N-terminus when compared to isoform 1.