

Product datasheet for **SC306800**

ATP2A1 (NM_173201) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATP2A1 (NM_173201) Human Untagged Clone
Tag: Tag Free
Symbol: ATP2A1
Synonyms: ATP2A; SERCA1
Mammalian Cell Selection: None
Vector: pCMV6-XL5
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_173201 edited
 ATGGAGGCCGCTCATGCTAAAACCACGGAGGAATGTTTGGCCTATTTGGGGTGAGTGAG
 ACCACGGGCCTCACCCCGACCAAGTTAAGCGGAATCTGGAGAAAACGGCCTCAATGAG
 CTCCCTGCTGAGGAAGGGAAGACCCTGTGGGAGCTGGTGATAGAGCAGTTTGAAGACCTC
 CTGGTGGCATTCTCCTCCTGGCCGCATGCATTTCTTCGTGCTGGCCTGGTTTGAGGAA
 GGTGAAGAGACCATCACTGCCTTTGTTGAACCCTTTGTCATCCTCTTGATCCTCATTGCC
 AATGCCATCGTGGGGTTTGGCAGGAGCGGAACGCAGAGAACGCCATCGAGGCCCTGAAG
 GAGTATGAGCCAGAGATGGGGAAGGTCTACCGGGCTGACCGCAAGTCAGTGCAAAGGATC
 AAGGCTCGGGACATCGTCCCTGGGGACATCGTGGAGGTGGCTGTGGGGACAAAGTCCCT
 GCAGACATCCGAATCCTCGCCATCAAATCCACCACGCTGCGGGTTGACCAGTCCATCCTG
 ACAGGCGAGTCTGTATCTGTCATCAAACACACGGAGCCCGTTCTGACCCCGAGCTGTC
 AACCGAGACAAGAAGAACATGCTTTTCTCGGGCACCAACATTGCAGCCGCAAGGCCTTG
 GGCATCGTGGCCACCACTGGTGTGGGCACCGAGATTGGGAAGATCCGAGACCAAATGGCT
 GCCACAGAACAGGACAAGACCCCTTGCAGCAGAAGCTGGATGAGTTTGGGGAGCAGCTC
 TCCAAGGTCATCTCCCTCATCTGTGTGGCTGTCTGGCTTATCAACATTGGCCACTTCAAC
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 GAGTTCTCCATCACCGGCTCCACTTACGCTCCAGTGGGAGAGGTCTTGAAGAATGATAAG
 CCAGTCCGGCCAGGGCAGTATGACGGGCTGGTGGAGCTGGCCACCATCTGTGCCCTCTGC
 AATGACTCCTCCTGGACTTCAACGAGGCCAAAGGTGTCTATGAGAAGGTGCGGAGGCC
 ACCGAGACAGCACTCACCACCCTGGTGGAGAAGATGAATGTGTTCAACACGGATGTGAGA
 AGCCTCTCGAAGGTGGAGAGAGCAACGCCTGCAACTCGGTGATCCGCCAGCTAATGAAG
 AAGGAATTCACCCTGGAGTTCTCCCGAGACAGAAAGTCCATGTCTGTCTATTGCTCCCA
 GCCAAATCTCCCGGGCTGCTGTGGCAACAAGATGTTTGTCAAGGTGCCCTGAGGGC



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GTCATCGACCGCTGTAACATATGTGCGAGTTGGCACCACCCGGGTGCCACTGACGGGGCCG
GTGAAGGAAAAGATCATGGCGGTGATCAAGGAGTGGGGCACTGGCCGGGACACCCCTGCGC
TGCTTGGCCCTGGCCACCCGGGACACCCCCCGAAGCGAGAGGAAATGGTCTGGATGAC
TCTGCCAGGTTCTGGAGTATGAGACGGACCTGACATTCGTGGGTGTAGTGGGCATGCTG
GACCCCTCCGCGCAAGGAGGTACGGGCTCCATCCAGCTGTGCCGTGACGCCGGGATCCGG
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CCCTCGCACAAAGTCCAAGATTGTGGAGTACCTGCAGTCCACGATGAGATCACAGCCATG
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GGATCTGGCACTGCCGTGGCCAAGACTGCCTCTGGGATGGTGCTGGTGACGACAACCTC
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ATCCGCTACCTCATTTCTCCAACGTGGGCGAGGTGGTCTGTATCTTCTGACCGCTGCC
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GGGCTCCAGCCACAGCCCTGGGCTTCAACCCACCAGACCTGGACATCATGGACGCCCC
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ATGTCCCTGCACTTCTCATCTCTATGTTGACCCCTGCCGATGATCTCAAGCTCCGG
GCCCTGGACCTCACCCAGTGGCTCATGGTCTCAAGATCTCACTGCCAGTCATTGGGCTC
GACGAAATCCTCAAGTTCGTTGCTCGGAACTACCTAGAGGATCCAGAAGTAAAAGAAGG
AAGTGA
    
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- Restriction Sites:** Please inquire
- ACCN:** NM_173201
- Insert Size:** 3000 bp
- 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_173201.2](#), [NP_775293.1](#)

RefSeq Size: 3528 bp

RefSeq ORF: 3006 bp

Locus ID: 487

UniProt ID: [O14983](#)

Cytogenetics: 16p11.2

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Alzheimer's disease, Calcium signaling pathway

Gene Summary: This gene encodes one of the SERCA Ca(2+)-ATPases, which are intracellular pumps located in the sarcoplasmic or endoplasmic reticula of muscle cells. This enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen, and is involved in muscular excitation and contraction. Mutations in this gene cause some autosomal recessive forms of Brody disease, characterized by increasing impairment of muscular relaxation during exercise. Alternative splicing results in three transcript variants encoding different isoforms. [provided by RefSeq, Oct 2013]
Transcript Variant: This variant (b) lacks an exon in the 3' coding region resulting in a frameshift and use of a downstream termination codon, compared to variant a. Isoform b has a longer and distinct C-terminus, compared to isoform a. Isoform b is also referred to as the neonatal isoform.