

Product datasheet for **SC303467**

ATP2A1 (NM_004320) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATP2A1 (NM_004320) Human Untagged Clone
Tag: Tag Free
Symbol: ATP2A1
Synonyms: ATP2A; SERCA1
Vector: pCMV6 series
Fully Sequenced ORF: >NCBI ORF sequence for NM_004320, the custom clone sequence may differ by one or more nucleotides

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ATGGAGGCCGCTCATGCTAAAACCACGGAGGAATGTTTGGCCTATTTTGGGGTGAGTGAG
ACCACGGGCTCACCCCGACCAAGTTAAGCGAATCTGGAGAAATACGGCCTCAATGAG
CTCCCTGCTGAGGAAGGGAAGACCCTGTGGGAGCTGGTATAGAGCAGTTGAAGACCTC
CTGGTGCGGATTCTCCTCCTGGCCGCATGCATTTCTTCGTGCTGGCCTGGTTTGAGGAA
GGTGAAGAGACCATCACTGCCTTTGTTGAACCCTTTGTCATCCTCTTGATCCTCATTGCC
AATGCCATCGTGGGGTTTGGCAGGAGCGGAACGCAGAGAACGCCATCGAGGCCCTGAAG
GAGTATGAGCCAGAGATGGGGAAGTCTACCGGGCTGACCGCAAGTCAGTGCAAAGGATC
AAGGCTCGGGACATCGTCCCTGGGGACATCGTGGAGGTGGCTGTGGGGGACAAAGTCCCT
GCAGACATCCGAATCCTCGCCATCAAATCCACCACGCTGCGGGTTGACCAGTCCATCCTG
ACAGGCGAGTCTGTATCTGTATCAAAACACAGGAGCCCGTTCTGACCCCGGAGCTGTC
AACCAGGACAAGAAGACATGCTTTTCTCGGGCACCAACATTGACGCGGCAAGGCCCTTG
GGCATCGTGGCCACCACCGGTGTGGGCACCGAGATTGGGAAGATCCGAGACCAAAATGGCT
GCCACAGAACAGGACAAGACCCCTTGCAGCAGAAGCTGGATGAGTTTGGGGAGCAGCTC
TCCAAGGTCACTCCCTCATCTGTGTGGCTGTCTGGCTTATCAACATTGGCCACTTCAAC
GACCCCGTCCATGGGGGCTCCTGGTTCCGCGGGGCCATCTACTACTTTAAGATTGCCGTG
GCCTTGGCTGTGGCTGCCATCCCCGAAGTCTTCTGCAGTCATCACCACCTGCCTGGCC
CTGGGTACCCGTCGGATGGCAAAGAAGATGCCATTGTAAAGAAGCTTGCCTCCGTAGAG
ACCCTGGGCTGCACCTCTGTATCTGTTCCGACAAGACAGGCACCCTCACCACCAACCAG
ATGTCTGTCTGAAGATGTTTATCATTGACAAGGTGGATGGGGACATCTGCCTCTGAAT
GAGTTCTCCATCACCAGCTCCACTTACGCTCCAGAGGGAGAGTCTTGAAGAATGATAAG
CCAGTCCGGCCAGGGCAGTATGACGGGCTGGTGGAGCTGGCCACCATCTGTGCCCTCTGC
AATGACTCCTCCTTGACTTCAACGAGGCCAAAGGTGTCTATGAGAAGGTCGGCGAGGCC
ACCGAGACAGCACTCACCACCCTGGTGGAGAAGATGAATGTGTTCAACACGGATGTGAGA
AGCCTCTCGAAGGTGGAGAGAGCAACGCTGCAACTCGTGATCCGCCAGCTAATGAAG
AAGGAATTCACCTGGAGTTCTCCCGAGACAGAAAGTCCATGTCTGTCTATTGCTCCCCA
GCCAAATCTTCCCGGGCTGCTGTGGGCAACAAGATGTTTGTCAAGGGTGCCCTGAGGGC
GTCATCGACCGCTGTAATATGTGCGAGTTGGCACCACCCGGGTGCCACTGACGGGGCCG
GTGAAGGAAAAGATCATGGCGGTGATCAAGGAGTGGGGCACTGGCCGGGACACCTTGC
TGCTTGGCCCTGGCCACCCGGGACACCCCCCGAAGCGAGAGGAAATGGTCTGGATGAC

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TCTGCCAGGTTCTGGAGTATGAGACGGACCTGACATTCGTGGGTGTAGTGGGCATGCTG
 GACCCCTCCGCGCAAGGAGGTACGGGCTCCATCCAGCTGTGCCGTGACGCCGGGATCCGG
 GTGATCATGATCACTGGGGACAACAAGGGCACAGCCATTGCCATCTGCCGGCGAATTGGC
 ATCTTTGGGGAGAACGAGGAGGTGGCCGATCGCGCTACACGGGCCGAGAGTTTCGACGAC
 CTGCCCCCTGGCTGAACAGCGGGAAGCCTGCCGACGTGCCTGTCTGCTTCGCCCGTGTGGAG
 CCCTCGCACAAGTCCAAGATTGTGGAGTACCTGCAGTCTACGATGAGATCACAGCCATG
 ACAGGTGATGGCGTCAATGACGCCCTGCCCTGAAGAAGGCTGAGATTGGCATTGCCATG
 GGATCTGGCACTGCCGTGGCCAAGACTGCCTCTGAGATGGTGCTGGCTGACGACAATTC
 TCCACCATCGTAGCTGTGTGGAGAGGGCCGCGCCATCTACAACAACATGAAGCAGTTC
 ATCCGCTACCTCATTTCCTCCAACGTGGGCGAGGTGGTCTGTATCTTCTGACCGCTGCC
 CTGGGGCTGCCTGAGGCCCTGATCCCGGTGCAGCTGCTATGGGTGAACTTGGTGACCGAC
 GGGCTCCCAGCCACAGCCCTGGGCTTCAACCCACCAGACTGGACATCATGGACCGCCCC
 CCCCCGAGCCCCAAGGAGCCCTCATCAGTGGCTGGCTCTTCTCCGCTACATGGCAATC
 GGGGGCTATGTGGGTGCAGCCACCGTGGGAGCAGCTGCCTGGTGGTTCTGTACGCTGAG
 GATGGGCCTCATGTCACTACAGCCAGCTGACTCACTTATGCAGTGCACCGAGGACAAC
 ACCCACTTTGAGGGCATAGACTGTGAGGTCTTCGAGGCCCCCGAGCCCATGACCATGGCC
 CTGTCCGTGCTGGTGACCATCGAGATGTGCAATGCACTGAACAGCCTGTCCGAGAACCAG
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 ATGTCCCTGCACTTCTCATCTCTATGTTGACCCCTGCCGATGATCTTCAAGCTCCGG
 GCCCTGGACCTCACCCAGTGGCTCATGGTCTCAAGATCTCACTGCCAGTCATTGGGCTC
 GACGAAATCCTCAAGTTCGTTGCTCGGAACTACCTAGAGGGATAA

- Restriction Sites:** Please inquire
- ACCN:** NM_004320
- 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_004320.3](#), [NP_004311.1](#)
- RefSeq Size:** 3570 bp
- RefSeq ORF:** 3570 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 (a) represents the longer transcript but encodes the shorter isoform (a).