OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC327266

Sodium Potassium ATPase (ATP1A1) (NM_001160233) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sodium Potassium ATPase (ATP1A1) (NM_001160233) Human Untagged Clone
Tag:	Tag Free
Symbol:	Sodium Potassium ATPase
Synonyms:	CMT2DD; HOMGSMR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>SC327266 representing NM_001160233.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCCTTTAAGGTTGGACGTGATAAGTATGAGCCTGCAGCTGTTTCAGAACAAGGTGATAAAAAGGGC
AAAAAGGGCAAAAAAGACAGGGACATGGATGAACTGAAGAAAGAAGTTTCTATGGATGATCATAAACTT
AGCCTTGATGAACTTCATCGTAAATATGGAACAGACTTGAGCCGGGGATTAACATCTGCTCGTGCAGCT
GAGATCCTGGCGCGAGATGGTCCCAACGCCCTCACTCCCCCTCCCACTACTCCTGAATGGATCAAGTTT
TGTCGGCAGCTCTTTGGGGGGTTCTCAATGTTACTGTGGATTGGAGCGATTCTTTGTTTCTTGGCTTAT
AGCATCCAAGCTGCTACAGAAGAGGAACCTCAAAACGATAATCTGTACCTGGGTGTGGTGCTATCAGCC
GTTGTAATCATAACTGGTTGCTTCTCCTACTATCAAGAAGCTAAAAGTTCAAAGATCATGGAATCCTTC
AAAAACATGGTCCCTCAGCAAGCCCTTGTGATTCGAAATGGTGAGAAAATGAGCATAAATGCGGAGGAA
GTTGTGGTTGGGGATCTGGTGGAAGTAAAAGGAGGAGACCGAATTCCTGCTGACCTCAGAATCATATCT
GCAAATGGCTGCAAGGTGGATAACTCCTCGCTCACTGGTGAATCAGAACCCCAGACTAGGTCTCCAGAT
TTCACAAATGAAAACCCCCTGGAGACGAGGAACATTGCCTTCTTTTCAACCAATTGTGTTGAAGGCACC
GCACGTGGTATTGTTGTCTACACTGGGGATCGCACTGTGATGGGAAGAATTGCCACACTTGCTTCTGGG
CTGGAAGGAGGCCAGACCCCCATTGCTGCAGAAATTGAACATTTTATCCACATCATCACGGGTGTGGCT
GTGTTCCTGGGTGTGTCTTTCTTCATCCTTTCTCTCATCCTTGAGTACACCTGGCTTGAGGCTGTCATC
TTCCTCATCGGTATCATCGTAGCCAATGTGCCGGAAGGTTTGCTGGCCACTGTCACGGTCTGTCTGACA
CTTACTGCCAAACGCATGGCAAGGAAAAACTGCTTAGTGAAGAACTTAGAAGCTGTGGAGACCTTGGGG
TCCACGTCCACCATCTGCTCTGATAAAACTGGAACTCTGACTCAGAACCGGATGACAGTGGCCCACATG
TGGTTTGACAATCAAATCCATGAAGCTGATACGACAGAGAATCAGAGTGGTGTCTCTTTTGACAAGACT
TCAGCTACCTGGCTTGCTCTGTCCAGAATTGCAGGTCTTTGTAACAGGGCAGTGTTTCAGGCTAACCAG
GAAAACCTACCTATTCTTAAGCGGGCAGTTGCAGGAGATGCCTCTGAGTCAGCACTCTTAAAGTGCATA
GAGCTGTGCTGTGGTTCCGTGAAGGAGATGAGAGAAAGATACGCCAAAATCGTCGAGATACCCTTCAAC
TCCACCAACAAGTACCAGTTGTCTATTCATAAGAACCCCAACACATCGGAGCCCCAACACCTGTTGGTG

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ATGAAGGGCGCCCCAGAAAGGATCCTAGACCGTTGCAGCTCTATCCTCCTCCACGGCAAGGAGCAGCCC
CTGGATGAGGAGCTGAAAGACGCCTTTCAGAACGCCTATTTGGAGCTGGGGGGCCTCGGAGAACGAGTC
CTAGGTTTCTGCCACCTCTTTCTGCCAGATGAACAGTTTCCTGAAGGGTTCCAGTTTGACACTGACGAT
GTGAATTTCCCTATCGATAATCTGTGCTTTGTTGGGCTCATCTCCATGATTGACCCTCCACGGGCGGCC
GTTCCTGATGCCGTGGGCAAATGTCGAAGTGCTGGAATTAAGGTCATCATGGTCACAGGAGACCATCCA
ATCACAGCTAAAGCTATTGCCAAAGGTGTGGGCATCATCTCAGAAGGCAATGAGACCGTGGAAGACATT
GCTGCCCGCCTCAACATCCCAGTCAGCCAGGTGAACCCCAGGGATGCCAAGGCCTGCGTAGTACACGGC
AGTGATCTAAAGGACATGACCTCCGAGCAGCTGGATGACATTTTGAAGTACCACACTGAGATAGTGTTT
GCCAGGACCTCCCCTCAGCAGAAGCTCATCATTGTGGAAGGCTGCCAAAGACAGGGTGCTATCGTGGCT
GTGACTGGTGACGGTGTGAATGACTCTCCAGCTTTGAAGAAAGCAGACATTGGGGTTGCTATGGGGATT
GCTGGCTCAGATGTGTCCAAGCAAGCTGCTGACATGATTCTTCTGGATGACAACTTTGCCTCAATTGTG
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AACATTCCCGAGATCACCCCGTTCCTGATATTTATTATTGCAAACATTCCACTACCACTGGGGACTGTC
ACCATCCTCTGCATTGACTTGGGCACTGACATGGTTCCTGCCATCTCCCTGGCTTATGAGCAGGCTGAG
AGTGACATCATGAAGAGACAGCCCAGAAATCCCAAAACAGACAAACTTGTGAATGAGCGGCTGATCAGC
ATGGCCTATGGGCAGATTGGAATGATCCAGGCCCTGGGAGGCTTCTTTACTTACTTTGTGATTCTGGCT
GAGAACGGCTTCCTCCCAATTCACCTGTTGGGCCTCCGAGTGGACTGGGATGACCGCTGGATCAACGAT
GTGGAAGACAGCTACGGGCAGCAGTGGACCTATGAGCAGAGGAAAATCGTGGAGTTCACCTGCCACACA
GCCTTCTTCGTCAGTATCGTGGTGGTGCAGTGGGCCGACTTGGTCATCTGTAAGACCAGGAGGAATTCG
GTCTTCCAGCAGGGGATGAAGAACAAGATCTTGATATTTGGCCTCTTTGAAGAGACAGCCCTGGCTGCT
TTCCTTTCCTACTGCCCTGGAATGGGTGTTGCTCTTAGGATGTATCCCCTCAAACCTACCTGGTGGTTC
TGTGCCTTCCCCTACTCTCTTCTCATCTTCGTATATGACGAAGTCAGAAAACTCATCATCAGGCGACGC
CCTGGCGGCTGGGTGGAGAAGGAAACCTACTATTAG
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	SgfI-MluI
ACCN:	NM_001160233
Insert Size:	3072 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_001160233.1

RefSeq Size:	3778 bp
RefSeq ORF:	3072 bp
Locus ID:	476
UniProt ID:	P05023
Cytogenetics:	1p13.1
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Cardiac muscle contraction
MW:	113 kDa
Gene Summary:	The protein encoded by this gene belongs to the family of P-type cation transport ATPases, and to the subfamily of Na+/K+ -ATPases. Na+/K+ -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+/K+ -ATPase is encoded by multiple genes. This gene encodes an alpha 1 subunit. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2009] Transcript Variant: This variant (3) represents the longest transcript and encodes the longest isoform (c).