

Product datasheet for **SC323217**

ATP6V0A1 (NM_001130021) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP6V0A1 (NM_001130021) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATP6V0A1
Synonyms:	a1; ATP6N1; ATP6N1A; Stv1; Vph1; VPP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-Myc-DDK (PS100007)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_001130021, the custom clone sequence may differ by one or more nucleotides

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ATGGGGGAGCTTTCCGGAGTGAAGAAATGACACTGGCCAGCTTTTTCTACAGTCAGAGGCTGCTTATT
GTTGTGTCAGTGAATTAGGAGAAGCTTGGAAAGGTTTCAGTTTCGTGACTTAAATCCAGATGTGAATGTTTT
CCAACGGAAATTTGTGAATGAAGTTAGAAGATGTGAAGAAATGGATCGAAAGCTTCGATTTGTTGAGAAA
GAGATAAGAAAAGCTAACATTCCGATTATGGACACCGGTGAAAACCCAGAGGTTCCCTTCCCGGGGACA
TGATTGACTTAGAGGCCAATTTTGAAGAATTGAAAATGAACTGAAGGAAATCAACACAAAACCAGGAAGC
TCTGAAGAGAAAATTCCTGGAAGTACCGAATTAATACTTACTCGAAAACCTCAGCAATTTTTTGTGAT
GAGATGGCGGATCCAGACTTGTGGAAGAGTCTCATCCCTCTGGAGCCAAGTGAGATGGGAAGAGGCA
CTCCTTTAAGACTTGGCTTCGTGGCTGGTGTCTTAACCGGGAGCGCATCCCTACTTTTGAGCGCATGCT
TTGGCGGGTATGCCGGGAAATGTGTTCTGCGACAGGCTGAAATCGAGAACCCCTGGAGGATCCTGTG
ACTGGCGACTACGTGCACAAGTCTGTGTTATCATTTTTCTTCAAGGCGATCAGCTGAAAAACAGAGTCA
AGAAAATCTGTGAAGGGTCCGAGCCTCACTCTATCCCTGTCCTGAGACACCACAGGAGAGGAAGGAAAT
GGCTTCTGGAGTGAATACCAGGATTGATGATCTCAAATGGTTCTGAATCAAACGGAGGATCACCGCCAG
AGGGTTCTGCAGGCAGCTGCTAAGAACATCCGTGTCTGGTTCATCAAAGTGCAGGAAGATGAAGGCCATCT
ATCACACCCTGAACCTGTGCAACATAGATGTGACTCAGAAATGCTTGATTGCAGAGGCTGGTGCCTGT
CACCGACCTTGACTCCATCCAGTTTGCCTCAGAAAGGGGACGGAACACAGTGGTCCACTGTACCTTCC
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TTCAGAACATAGTAGATGCTTATGGAATTGGAACCTTACCAGAGAGATAAATCCAGCTCCGTATACTATTAT
CACGTTCCCTTTTCTATTTGCTGTGATGTTTGGAGACTTCGGTCATGGCATTTTAATGACCTTTTTGCT
GATGGATGGTACTGAGGGAGAGCCGGATCCTTTCCAGAAGAATGAGAATGAGATGTTTAGCCTGTGT
TCAGTGGTCGATACATTATTTTATGATGGGTGTGTTCTCCATGTACACTGGCCTCATCTACAATGATTG
CTTTTCCAAGTCTCTTAATATCTTTGGGTATCCTGGAGTGTACGGCCGATGTTTACTTATAAATGGACT
GAAGAGACGCTTCGGGGGAACCTGTTCTACAGCTGAACCCAGCCCTCCCTGGAGTGTGGTGGACCAT
ACCCTTTTGGCATTGATCCAATTTGGAACATTGCTACCAATAAACTGACGTTCTTGAACCTTTAAGAT
GAAGATGTCTGTTATCCTTGGTATCATCCATATGCTGTTTGGAGTCAAGCTGAGTCTGTTCAACCATATC
TATTTCAAGAAGCCCTGAATATCTACTTTGGATTTATCCTGAAATAATCTTCATGACCTTTTGTGTTG
GCTATTTGGTTATCCTTATTTTTACAAGTGGACGGCCTATGATGCTCATACCTCTGAGAATGCACCAAG
CCTTCTGATCCATTTATAAACATGTTCTCTTTTCTACCCAGAGTCTGGTTATTCAATGTTGTATTCT
GGACAGAAAGGAATTCAGTGTTTCTGGTGTGTTGACTACTGTGTACCTTGGATGCTGCTGTTTA
AACCATTGGTCTTCGCCGTCAGTATTTGAGGAGAAAGCATTGGGAACCTCAACTTTGGTGGGATCAG
GGTGGGCAACGGACCGACAGAGGAGGATGCTGAGATTATTCAGCATGACCAGCTCTCCACCCACTCAGAG
GACGCAGACGAGCCTCCGAGGACGAAGTGTGACTTTGGGGACACCATGGTCCACCAGGCCATCCACA
CCATCGAGTACTGCCTGGGCTGCATCTCCAACACTGCCTCCTACTTGGGCTCTGGGCCCTCAGCCTCGC
TCATGCGCAGCTGTCTGAGGTGCTTTGGACCATGGTATCCACATCGGCTGAGCGTGAAGAGCTTGGCG
GGAGGTTTGGTGTGTTCTTCTTCTTCACTGCCTTTGCCACCTGACCGTGGCCATCCTCCTGATCATGG
AGGGCCTCTCGGCCTTTCTCCACGCACTGCGCTTACACTGGGTTGAGTTCCAGAATAAATCTACAGCGG
GACCGGTTTCAAGTCTTACCCTTCTCCTTCGAGCATATTCGGGAAGGGAAGTTTGAAGAGTGA
    
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Restriction Sites: Please inquire

ACCN: NM_001130021

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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 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_001130021.1](#), [NP_001123493.1](#)

RefSeq Size: 4205 bp

RefSeq ORF: 2514 bp

Locus ID: 535

UniProt ID: [Q93050](#)

Cytogenetics: 17q21.2

Protein Families: Transmembrane

Protein Pathways: Epithelial cell signaling in Helicobacter pylori infection, Lysosome, Metabolic pathways, Oxidative phosphorylation, Vibrio cholerae infection

Gene Summary:

This gene encodes a component of vacuolar ATPase (V-ATPase), a multisubunit enzyme that mediates acidification of eukaryotic intracellular organelles. V-ATPase dependent organelle acidification is necessary for such intracellular processes as protein sorting, zymogen activation, receptor-mediated endocytosis, and synaptic vesicle proton gradient generation. V-ATPase is composed of a cytosolic V1 domain and a transmembrane V0 domain. The V1 domain consists of three A and three B subunits, two G subunits plus the C, D, E, F, and H subunits. The V1 domain contains the ATP catalytic site. The V0 domain consists of five different subunits: a, c, c', c", and d. Additional isoforms of many of the V1 and V0 subunit proteins are encoded by multiple genes or alternatively spliced transcript variants. This gene encodes one of three A subunit proteins and the encoded protein is associated with clathrin-coated vesicles. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) uses an alternate in-frame splice junction and contains an alternate in-frame exon compared to variant 1. The resulting isoform (b) has the same N- and C-termini but is shorter compared to isoform a.