

Product datasheet for **SC115366**

ATP6V0A2 (NM_012463) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP6V0A2 (NM_012463) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATP6V0A2
Synonyms:	A2; a2V; ARCL; ARCL2A; ATP6A2; ATP6N1D; J6B7; RTF; STV1; TJ6; TJ6M; TJ6S; VPH1; WSS
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC115366 sequence for NM_012463 edited (data generated by NextGen Sequencing)

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ATGGGGTCCCTGTTCCGGAGCGAGACCATGTGCCTGGCGCAGCTCTTCTGCAGTCGGGC
ACGGCCTACGAGTGCCTCAGCGCCCTGGGCGAGAAAGGCTGGTCCAGTCCGAGACCTC
AACCAGAACGTAAGTTCTTTCCAAAGAAAATTTGTTGGTGAGGTGAAGAGGTGTGAAGAG
CTAGAGCGAATATTGGTGTATTTGGTACAGGAAATTAATAGAGCTGATATCCCTTCTCT
GAAGGAGAGGCCAGCCCTCTGCGCCACCCTGAAACAGGTTCTAGAAATGCAGGAGCAG
TTGCAGAAGCTCGAGTTGAACTGAGAGAAGTCACTAAGAACAAGGAGAACTGAGGAAA
AACTTGCTGGAACCTGATAGAGTACACTCACATGCTGAGAGTGACAAAGACCTTTGTGAAA
CGCAACGTTGAGTTGAACCCACTTATGAAGAATTCCTTCTTAGAGAGCGATTCTTTG
TTGGATTACAGCTGTATGCAGAGGCTGGGAGCAAACTGGGATTTGTGTCTGGCCTAATT
AACCAAGGAAAAGTGAAGCATTGAAAAAATGTTGTGGAGAGTCTGCAAAGGTTACACC
ATCGTGTCTATGCAGAAGTGGATGAATCCCTGAAGACCCTGAAACAGGGGAAGTCATA
AAATGGTATGTCTTTTTAATATCCTTTTGGGAGAGCAGATTGGCCACAAGGTTAAGAAG
ATATGTGATTGCTACCACTGCCACGTGTACCCCTATCCAACACAGCCGAGGAGCGGAGG
GAGATCCAGGAGGGGCTGAACACCCGCATCCAGGATCTCTACACTGTACTGCACAAAACC
GAGGACTATTTGAGGCAAGTGCTATGTAAGCCGCCGAGTCTGTCTACAGCCGTGTGATC
CAGGTGAAGAAAATGAAGGCCATCTATCACATGCTGAACATGTGCAGCTTTGACGTGACC
AACAAAGTCCCTCATTGCTGAGGTCTGGTGTCCCAGGGCGGATCTGCAGGACCTGCGCCGG
GCACTGGAGGAGGGCTCGAGAGAGAGTGGTGTACAATCCCTCATTTCATGAATAAATC
CCCACAAAAGAAACACCCCCACTCGGATCCGCACCAACAAAATTCACCGAGGGATTTAG
AACATCGTGGATGCTTATGGAGTCGGAAGCTACAGAGAAGTCAATCCAGCTCTCTTTACC
ATCATCACCTTCCCGTTTTTATTTGCTGTGATGTTTGGAGACTTCGGACATGGCTTTGTG
ATGTTTTTATTTGCCCTCTTGTGGTGTAAATGAAAATCATCCAGACTAAATCAGTCA
CAAGAGATCATGAGGATGTTTTTAATGGCCGGTACATCCTCCTGCTGATGGGGCTGTTT
TCAGTGTACACTGGCCTCATCTACAACGACTGCTTTTCAAAGTCAGTCAACCTGTTCCGGC
TCTGGGTGGAACGTGTCGGCCATGTACAGCTCCAGCCACCCACCCGCAGAGCATAAGAAG
ATGGTGTCTTTGGAACGACAGCGTCGTTAGACACAACAGCATTTCAGCTGGATCCAAGC
ATTCTGGAGTGTCCGAGGCCCTTATCCCTTGGCATTGATCCTATTTGGAAGTGGCC
ACAAATCGCCTCACTTTTCTAAACTCTTTCAAATGAAAATGTCCGTGATTTTAGGAATC
ATTCATATGACTTTTGGAGTCATTCTGGGAATATTTAACCACTTGCACTTCAGGAAGAAG
TTCAACATTTACCTGGTTCCATCCCGAACTTCTCTTATGCTCTGTATCTTTGGATAC
CTTATATTTATGATTTTCTACAAGTGGCTGGTTTTTTCAGCAGAAACCTCCAGAGTTGCT
CCCAGCATTCTGATTGAATTTATTAACATGTTTTTATTCCAGCCAGTAAACAAGTGGC
CTTTACACAGGGCAGGAGTATGTCCAGAGAGTGTCTGGTTGTACAGCATTGTCTGTC
CCTGTCTCTTCTGGGAAAGCCACTGTTTTTGTGTGGCTTCACAAATGGGCGTAGTTGC
TTCCGGGTGAACCGGAGTGGCTACACACTTATAAGGAAAGATAGTGAGGAAGAAGTTTCA
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GAGTACTGTCTGGGATGCATCTCCAACACCGCCTCTACCTGAGGCTCTGGGCGCTTAGC
CTGGCTCACGCACAGTTGTCTGATGTCCTGTGGGCCATGCTGATGCGCGTGGGCCTCCGC
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ACCATTTTCATCCTTCTGATCATGGAAGGGCTTTCTGCGTTTTCTCACGCCATACGCCTC
CACTGGGTAGAATTTCAGAACAAATTTACGTTGGTGCAGGCACCAAAATTTGTTCTTTTC
TCATTCAGTCTACTTTTCATCAAAGTTCAATAACGACGACAGTGTGGCATGA

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Clone variation with respect to NM_012463.3
426 t=>c;471 t=>c;1515 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_012463 unedited
 TCAAATTTTGTAAACGACTCACTATTAGGGCGGCCGCGATTTCGGCACGAGGCGGACTGC
 TGTGGCGGCAGCTGGAGCGGGCCGCGGTGGCAGAACCGGGGGCGGCCGCTGCAGTCTG
 GAGCCCCATAGTCGGGGCCGCGGCCAGGCCACAGGAAGAGCTCGAGGCCGGGCCGCAC
 CGGCTGAGTGTGCGGGCCGCGCGGCTCGGAGCCGCCGCCCATCGAGCCCCTCCGGG
 CGCGGGTCGGCCGCCATGGGGTCCCTGTTCCGGAGCGAGACCATGTGCCTGGCGCAGCT
 CTTCTGCAGTCGGGCACGGCCTACGAGTGCCTCAGCGCCCTGGGCGAGAAAGGCCTGGT
 CCAGTTCGAGACCTCAACCAGAACGTAAGTTCTTTCAAAGAAAATTTGTTGGTGAAGT
 GAAGAGGTGTGAAGAGCTAGAGCGAATATTGGTGTATTTGGTACAGGAAATTAATAGAGC
 TGATATCCCCTTCTGAAGGAGAGGCCAGCCCTCCTGCGCCACCCTGAAAACAGTTCT
 AGAAATGCAGGAGCAGTTGCAGAAGCTCGAGGTTGAACTGAGAGAAGTCACTAAGAACAA
 GGAGAACTGAGGAAAACTTGTGGAAGTATAGAGTACACTCACATGCTGAGAGTGAC
 AAAGACCTTTGTAAACGCAACGTTGAGTTGAACCCACTATGAAGAATCCCTTCCTT
 AGAGAGCGATTCTTTGTTGGATTACAGCTGTATGCAGNAGCTGGGAGCAAACTGGATTT
 GTGTCTGGCCTAATAACCAAGGAAAGTGGAGCATTGAAAAATGTTGTGGAGAGTCTNGCA
 AGGTACACCATCGTGTCTATGCAAACCTGGATGATCCCTTGAGACCTGAACAGGGGAGTCA
 TAAGGNATGTCTTTAATATCCTTTGGGAGACAGATGGCCACAGGTAGAAGATTGTGATG
 CTAC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_012463 unedited
 NNTTCGGTACACCTAAGNNACCGCGCCGCATNCTANGATCGAGTTTTTTTTTTTTTTTT
 TTTTTTTTTTTCATGAAAAATATCTTCATTTATATTTTGTACAAAAATATACAAAATA
 CTGCTTTTTCACCTTTCCTTCACTCAGTATAAACCTTCTGGTTCAGTGACATCAGCCAAG
 CTGTCACTAAATTCAAATCATGTCCGCATTATATCTTCTACAGTCACACTGGGTTTTAAG
 GCTCAGCATAACAATTTATCTTCCAAACATACAATTATCATAACTGGTTTTATGTAAGGGT
 AACAGGATAAGAGTCTTTAAAAAATATACAAGTGGGATAACCATTTGTTGTATGTCATT
 TTATCCCATTTGCCCAATTAATAAAAACAAGACAAAATGTAAAAAAATCCTCTACTTG
 TAATTCTAGGTAGCACAGGATAAAAAATATTTGCATATTTGGCCAGGCATGGTGGCTCA
 CGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGCAGGTGGATCACTTGAGGTCAGAAGTT
 CGAGACCAGCCTGGCCAACATGGTGAACCCCATCTCTACAAAAATACAAAAAATTAGC
 TGGTCACGGTGGCGCATGCCTGTAATCCAGTTACTCGGGAGGCTGAGACAGGAGAATCA
 CCTGAATCCAGGAGCGGAAGTTGCAATGAGACACGATCGTGCCATTGCACTCCAGCCTA
 CGTGACACAGCAAGACTTCATCTCAAAAAAAAAAAGTACATATTTTTAAATCCAGCAG
 ATAAATGTGAAATGTTTTGATTACCCATCATTAAATTTTTTAAAAAACTATCCCTACTTC
 AGCTGTGGNAAAAATTATCTGGCAACTTCAGGTGACAGATAAAGTCTGTTGTTGGTTAA
 AAAN

Restriction Sites:

NotI-NotI

ACCN:

NM_012463

Insert Size:

4540 bp

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](#)

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_012463.2](#), [NP_036595.2](#)

RefSeq Size: 4681 bp

RefSeq ORF: 2571 bp

Locus ID: 23545

UniProt ID: [Q9Y487](#)

Cytogenetics: 12q24.31

Domains: V_ATPase_sub_a

Protein Families: Transmembrane

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

Gene Summary: The protein encoded by this gene is a subunit of the vacuolar ATPase (v-ATPase), an heteromultimeric enzyme that is present in intracellular vesicles and in the plasma membrane of specialized cells, and which is essential for the acidification of diverse cellular components. V-ATPase is comprised of a membrane peripheral V(1) domain for ATP hydrolysis, and an integral membrane V(0) domain for proton translocation. The subunit encoded by this gene is a component of the V(0) domain. Mutations in this gene are a cause of both cutis laxa type II and wrinkly skin syndrome. [provided by RefSeq, Jul 2009]