

Product datasheet for **RG209819**

ATP6V0A2 (NM_012463) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP6V0A2 (NM_012463) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ATP6V0A2
Synonyms:	A2; a2V; ARCL; ARCL2A; ATP6A2; ATP6N1D; J6B7; RTF; STV1; TJ6; TJ6M; TJ6S; VPH1; WSS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG209819 representing NM_012463
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGTCCCTGTTCCGGAGCGAGACCATGTGCCTGGCGCAGCTCTTCTGCAGTCGGGCACGGCCTACG
 AGTGCCTCAGCGCCTGGGCGAGAAAGGCTGGTCCAGTTCAGACCTCAACCAGAACGTAAGTCTTT
 CCAAAGAAAATTTGTTGGTGAGGTGAAGAGGTGTGAAGAGCTAGAGCGAATATTGGTGTATTTGGTACAG
 GAAATTAATAGAGCTGATATCCCTTCTGAAGGAGAGGCCAGCCCTCTGCGCCACCCCTGAAACAGG
 TTCTAGAAATGCAGGAGCAGTTGCAGAAGCTCGAGGTTGAACTGAGAGAAGTCACTAAGAACAAGGAGAA
 ACTGAGGAAAACTTGTGGAAGTATAGAGTACACTCACATGCTGAGAGTGACAAAGACCTTTGTGAAA
 CGCAACGTTGAGTTGAACCCACTTATGAAGAATTCCTTCTTAGAGAGCGATTCTTTGTTGGATTACA
 GCTGTATGCAGAGGCTGGGAGCAAACTGGGATTTGTGTCTGGCCTAATTAACCAAGGAAAAGTGAAGC
 ATTTGAAAAAATGTTGTGGAGAGTCTGCAAAGGTACACCATCGTGTCTATGCAGAACTGGATGAATCC
 CTTGAAGACCCTGAAACAGGGGAAGTCATAAAATGGTATGTCTTTTAAATATCCTTTTGGGAGAGCAGA
 TTGGCCACAAGGTTAAGAAGATATGTGATTGCTACCACCTGCCACGTGTACCCCTATCCAACACAGCCGA
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 AATTCACCGAGGGATTTCAGAACATCGTGGATGCTTATGGAGTCGGAAGCTACAGAGAAGTCAATCCAGC
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 GAACCTGGCCACAAATCGCCTCACTTTTCTAAACTCTTCAAATGAAAATGTCCGTGATTTTAGGAATC
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 TGGGCCATGCTGATGCGCGTGGGCTCCGCGTTGACACCACCTATGGCGTCTTGCTACTGCTCCCGTTA
 TCGCGCTCTTTCAGTTTTGACCATTTTCATCCTTCTGATCATGGAAGGGCTTTCTGCGTTTCTTACGC
 CATACGCCTCACTGGGTAGAATTTCAGAACAAATTTACGTTGGTGCAGGCACCAAATTTGTTCTTTTC
 TCATTCAGTCTACTTTTCATCAAAGTTCAATAACGACGACAGTGTGGCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG209819 representing NM_012463
Red=Cloning site Green=Tags(s)

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MGSLFRSETMCLAQLFLQSGTAYECLSALGEKGLVQFRDLNQNVSFQRK FVGEVKRCEELERILVYL VQ  
EINRADIPLPEGEASPPAPPLKQVLEMQEQLQKLEVELREVTKNKEKLRKNLLELIEYTHMLRVTKTFVK  
RNVEFEPTYEEFPSLESDSLDDYSCMQRLGAKLGFVSGLINQ GKVEAFEKMLWRVCKGYTIVSYAELDES  
LEDPETGEVIKWYVFLISFWGEQIGHKVKKICDCYHCHVYPY PNTAEERREIQEGLNTRIQLDLYTVLHKT  
EDYLRQVLCKAAESVYSRVIQVKKMKAIYHMLNMCSFDVTNKCLIAEVWCPEADLQDLRRALEEGSRESG  
ATIPSFMNIIPTKETPPTRIRTNKFTEGFQNIVDAYGVGSYREVN PALFTIITFPFLFAVMFGDFGHGFV  
MFLFALLLVLENHPRLNQSQEIMRMFFNGRYILLMGLFSVYTGLIYND CFSKSVNLFSGGWNVSAMYS  
SSHPPAEHKKMVLWNSVVRHNSILQLDPSIPGVFRGPYPLGIDPIWN L ATNRLTFLNSFKMKMSVILGI  
IHMTFGVILGIFNHLHFRKKFNIYLVSIPELLFMLCIFGYLIFMIF YKWL V FSAETSRVAPSILIEFINM  
FLFPASKTSGLYTGQEYVQRVLLVVTAL SVPVLF LGKPLFLLWLHNGR SCFVNRSGYTLIRKDSEEEVS  
LLGSQDIEEGNHQVEDGCREMACEEFNFGEILMTQVIHSIEYCLGC ISNTASYLRRLWALSLAHAQLSDVL  
WAMLMRVGLRVDTTYGVLLLLPVIALFAVLTIFILLIMEGLSAFLHAI R LHWVEFQNKFYVGAGTKFVPF  
SFSLSSKFNDDSV A
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


ACCN: NM_012463

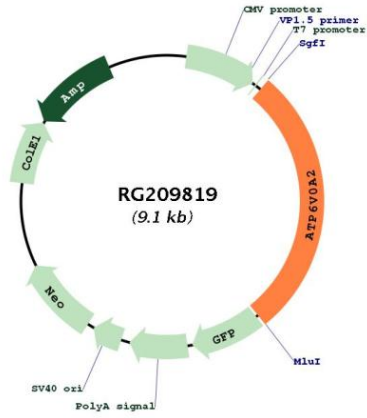
ORF Size: 2568 bp

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](#)

OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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:	<ol style="list-style-type: none">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]

Product images:



Circular map for RG209819