

Product datasheet for **RG204425**

ATP6V1A (NM_001690) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP6V1A (NM_001690) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ATP6V1A
Synonyms:	ARCL2D; ATP6A1; ATP6V1A1; DEE93; HO68; IECEE3; VA68; Vma1; VPP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG204425 representing NM_001690
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATTTTTCCAAGCTACCCAAAATACTCGATGAAGATAAAGAAAGCACATTTGGTTATGTGCATGGGG
 TCTCAGGACCTGTGGTTACAGCCTGTGACATGGCGGGTGACCCATGTATGAGCTGGTGAGAGTGGGCCA
 CAGCGAATTGGTTGGAGAGATTATTCGATTGGAGGGTGACATGGCTACTATTCAGGTGTATGAAGAACT
 TCTGGTGTCTGTTGGAGATCCTGTACTTCGCACTGGTAAACCCTCTCTGTAGAGCTTGGTCCTGGCA
 TTATGGGAGCCATTTTTGATGGTATTCAAAGACCTTTGTCGGATATCAGCAGTCAGACCCAAAGCATCTA
 CATCCCCAGAGGAGTAAACGTGTCTGCTCTTAGCAGAGATATCAAATGGGACTTTACACCTTGCAAAAAC
 CTACGGGTTGGTAGTCATCACTGGCGGAGACATTTATGGAATTGTCAGTGAGAACTCGCTTATCAAAC
 ACAAATCATGTTACCCACGAAACAGAGGAAGTAACTTACATTGCTCCACCTGGGAATTATGATAC
 CTCTGATGTTGTCTGGAGCTTGAATTTGAAGGTGTAAGGAGAAAGTTACCATGGTGAAGTATGGCCT
 GTACGTCAAGTTCGACCTGTCACTGAGAAGCTGCCAGCCAATCATCCTCTGTTGACTGGCCAGAGAGTCC
 TTGATGCCCTTTTTCCGTGTGTCCAGGGAGGAAGTACTGCTATCCCTGGAGCCTTTGGCTGTGAAAGAC
 AGTGATATCACAGTCTCTATCCAAGTATTCAAAGTGTGTAATCATCTATGTAGGATGTGGTAAAGA
 GGAAATGAGATGTCTGAAGTCTCCGGGACTTCCAGAGCTCACAAATGGAGGTTGATGGTAAAGTAGAGT
 CAATTATGAAGAGGACAGCTTTGGTAGCCAATACCTCCAATATGCCTGTTGCTGTAGAGAAGCCTCTAT
 TTATACTGGAATCACACTGTCAGAGTACTCCGTGACATGGGCTATCATGTCAGTATGATGGCTGACTCT
 ACCTCTAGATGGGCTGAGGCCCTTAGAGAAATCTCTGGTCGTTAGCTGAAATGCCTGCAGATAGTGGAT
 ATCCAGCTATCTTGGTGCCCGTCTGGCCTCGTTTTATGAACGAGCAGGCAGGGTAAAATGTCTTGGAAA
 TCCTGAAAGAGAAGGGAGTGTCAAGATTGTAGGAGCAGTTTCTCCACCTGGTGGTATTTTTCTGATCCA
 GTTACATCTGCCACTCTTGGTATCGTTCAGGTGTTCTGGGGCTTAGATAAGAAACTAGCTCAACGTAAGC
 ATTTCCCTCTGTCAATTGGCTCATCAGCTACAGCAAGTATATGCGTGCCTTGGATGAATACTATGACAA
 ACACCTTACAGAGTTCGTTCTCTGAGGACGAAAGCTAAGGAAATTCGCAGGAAGAAGAAGACCTGGCA
 GAAATTGTACAGCTTGTGGAAAGGCTTCTTGGCAGAAACAGATAAAATCACTCTGGAGGTAGCAAAAAC
 TTATCAAAGATGATTTCTACAACAAAATGGATATACTCCTTATGACAGGTTCTGCCATTCTACAAGAC
 AGTAGGGATGCTCCAACATGATTGCATTTTATGATATGGCTCGTAGAGCTGTTGAAACCACTGCCAG
 AGTGACAATAAAATCACATGGTCCATTATTCGTGAGCACATGGGAGACATCCTCTATAAACTTCTCTCCA
 TGAATTCAGGATCCACTGAAAGATGGTGAGGCAAAGATCAAAGCGACTATGCACAACCTCTTGAAGA
 CATGCAGAAATGCATTCCGTAGCCTTGAAGAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG204425 representing NM_001690
 Red=Cloning site Green=Tags(s)

MDFSKLPKILDEDKESTFGYVHGVSGPVVTACDMAGAAMYELVRVGHSELVGEIIRLEGDMATIQVYEET
 SGVSVGDPVLRGKPLSVELGPGIMGAIFDGIQRPLSDISSQTQSIYIPRGVNVLSALSRDIKWDFTPCKN
 LRVGSHITGGDIYGIIVSENSLIKHKIMLPPRNRGTVTYIAPPGNYDTSVVLELEFEFVKEKFTMVQVWP
 VRQVRPVTEKLPANHPLL TQQRVLDALFPCVQGGTTAIPGAFGCGKTVISQSLSKYSNSDVIIYVGCGER
 GNEMSEVLRDFPELTMEVDGKVESIMKRTALVANTSNMPVAAREASIYTGITLSEYFRDMGYHVSMMADS
 TSRWAEALREISGRLAEMPADSGYPAYLGARLASFYERAGRVKCLGNPEREGSVSIVGAVSPPGGDFSDP
 VTSATLGIYVQVFWGLDKKLAQRKHFPSVNWLSISKYMRALDEYYDKHFTFVPLRTRKAKEILQEEEDLA
 EIVQLVGKASLAETDKITLEVAKLIKDDFLQQNGYTPYDRFCPFYKTVGMLSNMIAFYDMARRAVETTAQ
 SDNKITWSIIREHMGDILYKLSMKFKDPLKDGEAIKSDYAQLLEDQMNAFRSLED

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001690

ORF Size: 1851 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.

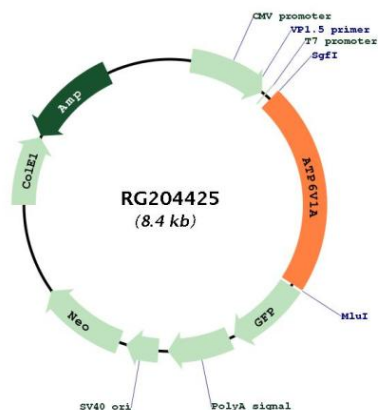
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
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_001690.4](#)

RefSeq Size:	4567 bp
RefSeq ORF:	1854 bp
Locus ID:	523
UniProt ID:	P38606
Cytogenetics:	3q13.31
Domains:	ATP-synt_ab, ATP-synt_ab_C, ATP-synt_ab_N
Protein Families:	Druggable Genome
Protein Pathways:	Epithelial cell signaling in Helicobacter pylori infection, Metabolic pathways, Oxidative phosphorylation, Vibrio cholerae infection
Gene Summary:	<p>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 encoded protein is one of two V1 domain A subunit isoforms and is found in all tissues. Transcript variants derived from alternative polyadenylation exist. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RG204425