

Product datasheet for **RG215672**

ATP6V0A4 (NM_130841) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP6V0A4 (NM_130841) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ATP6V0A4
Synonyms:	A4; ATP6N1B; ATP6N2; DRTA3; RDRTA2; RTA1C; RTADR; STV1; VPH1; VPP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG215672 representing NM_130841
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGTGTCTGTGTTTCGAAGCGAGGAGATGTGTTTGTCACTGTTTCTCCAGGTGGAAGCTGCATATT
GCTGTGTGGCTGAGCTCGGAGAGCTCGGATTGGTTCAGTTCAAAGATTTAAATATGAATGTGAACAGCTT
TCAAAGGAAATTTGTGAATGAAGTCAGAAGGTGTGAATCACTGGAGAGAATCCTCCGTTTTCTGGAAGAC
GAGATGCAAAATGAGATTGTAGTTCAGTTGCTCGAGAAAAGCCACTGACCCCGCTCCCACGGGAAATGA
TTACCCTGGAGACTGTTCTAGAAAACTGGAAGGAGAGTTACAGGAAGCCAACCAGAACCAGCAGGCCTT
GAAACAAAGCTTCTAGAACTGACAGAAGTAAATACCTCTGAAGAAAACCAAGACTTCTTTGAGACG
GAAACCAATTTAGCTGATGATTTCTTTACTGAGGACACTTCTGGCCTCCTGGAGTTGAAAGCAGTGCCTG
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CCTGTGACGAAAAGAAATTCAGAAGAACATATTCATCATATTTTACCAAGGAGAGCAGCTCAGGCAGA
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AGAGATGTTGGAGAGCGTCAATGTGAGGCTGGAAGATTTAATCACCGTCATAACACAAACAGAGTCTCAC
CGCCAGCGCTGCTGCAGGAAGCCGCTGCCAAGTGGCACTCCTGGCTCATCAAGTGCAGAAGATGAAAAG
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CCCGGTGGCAGATGCCACACGTATCAAGAGGGCACTGGAGCAAGGCATGGAACAAAGTGGCTCCTCCATG
GCCCCATCATGACCACAGTGAATCTAAAACAGCCCTCCCACATTTAACAGGACCAATAAATTCACAG
CTGGCTCCAGAATATTGTTGATGCCTATGGTGTGGCAGCTACCGGGAGATAAACCCAGCCCTCACGAC
CATCATCACTTTCCCTTCTGTTGCTGTGATGTTGGAGACTGTGGTCATGGAACCGTATGCTCCTG
GCTGCACTTTGGATGATTCTGAATGAGAGACGCTTGTCTCCCAGAAGACAGACAATGAGATTTGGAACA
CCTTCTCCACGGGCGCTATCTGATCCTACTTATGGGCATCTTCTCCATCTACACGGGTTTGTCTACAA
TGACTGCTTCTCAAGTCTTGAACATCTTTGGCTCTTCTGGAGTGTCCAACCCATGTTGAGAAACGGC
ACATGGAATACTCATGTAATGGAGGAAAGTCTATATCTGCAGCTGGACCCAGCCATACCAGGAGTGTATT
TTGGAAATCCATACCCGTTTGGGATTGATCCGATTTGGAAGTGGCTTCAAACAAACTCACATTTCTGAA
CTCGTATAAAATGAAGATGTCGGTGTATCCTGGGAATTGCCAGATGGTTTTTGGTGTATCCTCAGCCTT
TTCAATCACATATACTTCAGAAGAACTCAACATCATTCTGCAATTTATCCCTGAGATGATTTTTATCC
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GCACGCCCCAGCATCCTCATCCACTTCAACATGTTTCTGTTAACTACAGTGAAGTCTTCAACGCA
CCCCTCTACAAACATCAGCAAGAAGTCCAAAGTTTCTTTGTGGTTATGGCTTTGATTTCTGTGCCGTGGA
TGCTTCTGATTAAGCCGTTTATTTCTAGAGCCAGTTCATCGGAAATCCCAGCTGCAGGCATCCAGGATCCA
AGAAGATGCCACTGAGAACATTTGAAGGTGATAGCTCCAGCCCTTCTAGCCGTTCTGGCCAGAGGACTTCT
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CAGCCTGGCTCATGCACAACTGTCTGAAGTGTCTGGACTATGGTGTGATGAACAGCGGCCTTCAGACGCGA
GGCTGGGAGGAATCGTCGGGGTTTTTATTATTTTTGCGGTATTTGCTGTCTGACAGTAGCCATCCTTCT
TGATCATGGAGGCTCTCTGCTTCTGCACGCCCTGCGACTGCACTGGGTTGAGTTCAGAAACAAGT
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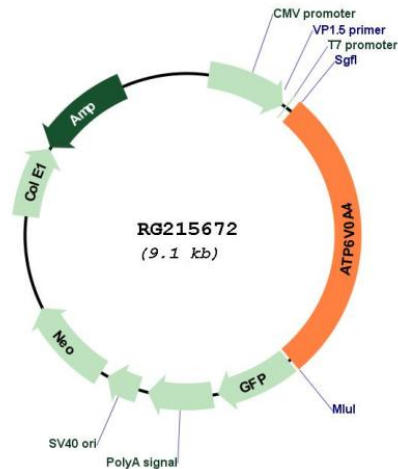
ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG215672 representing NM_130841
Red=Cloning site Green=Tags(s)

MVSVFRSEEMCLSQLFLQVEAAYCCVAELGELGLVQFKDLNMNVNSFQRKFNVEVRRCESLERILRFLED
EMQNEIVVQLLEKSPLTPLPREMITLETVLEKLEGEQEANQNQQALKQSFELELTELKYLKKTQDFFET
ETNLADDFFTEDTSGLLELKAVPAYMTGKLGFIAGVINRERMASFERLLWRICRGNVYLKFSMDAPLED
PVTKEEIQKNIFIIFYQGEQLRQKIKKICDGFRAIVYPCPERAVERREMLESVNVRLDLITVITQTESH
RQRLLEAAAANWHSWLKIVQKMKAVYHILNMCNIDVTQQCVIAEIWFPVADATRIKRALEQGMELSGSSM
APIMTTVQSKTAPPTFNRTNKFTAGFQNIVDAYGVGSYREINPAPYTIITFPFLFAVMFGDCGHGTVMLL
AALWMILNERRLLSQKTDNEIWNTFFHGRYLILLMGIFSITYTGLIYNDCFSKSLNIFGSSWSVQPMFRNG
TWNTHVMEEESLYQLDPAIPGVYFGNPYPFGIDPIWNLASNKLTFLNSYKMKMSVILGIVQMVFVILSL
FNHIYFRRTLNIILQFIPEMIFILCLFGYLVFMIIFKWCCFDVHVSQHAPSILIHFINMFLFNYSOSSNA
PLYKHQEQEVQSFVVMALISVPWMLLIKPFILRASHRKSQEQASRIQEDATENIEGSSSPSSRSGQRTS
ADTHGALDDHGEEFNFGDVFVHQAIHTIEYCLGCISNTASYLRLWALSLAHAQLSEVLWTMVMNSGLQTR
GWGGIVGVFIIFAVFAVLTVAILLIMEGLSAFLHALRLHWVEFQNKFYVGDGYKFSFSPFKHILDGTAAE

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Plasmid Map:


ACCN: NM_130841

ORF Size: 2520 bp

OTI Disclaimer: 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_130841.2](#), [NP_570856.2](#)

RefSeq Size: 3107 bp

RefSeq ORF: 2523 bp

Locus ID: 50617

UniProt ID: [Q9HBG4](#)

Cytogenetics:	7q34
Protein Families:	Transmembrane
Protein Pathways:	Epithelial cell signaling in Helicobacter pylori infection, Lysosome, 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 intracellular compartments of eukaryotic cells. V-ATPase dependent 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. This gene is one of four genes in man and mouse that encode different isoforms of the a subunit. Alternatively spliced transcript variants encoding the same protein have been described. Mutations in this gene are associated with renal tubular acidosis associated with preserved hearing. [provided by RefSeq, Jul 2008]</p>