

Product datasheet for **RC223769**

ATP6V0A1 (NM_005177) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP6V0A1 (NM_005177) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP6V0A1
Synonyms:	a1; ATP6N1; ATP6N1A; Stv1; Vph1; VPP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC223769 representing NM_005177
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGGAGCTTTTCCGGAGTGAAGAAATGACACTGGCCAGCTTTTCTACAGTCAGAGGCTGCTTATT
 GTTGTGTCAGTGAATTAGGAGAAGTTGAAAGGTTTCAGTTTCGTGACTTAAATCCAGATGTGAATGTTTT
 CCAACGGAAATTTGTGAATGAAGTTAGAAGATGTGAAGAAATGGATCGAAAGCTTCGATTTGTTGAGAAA
 GAGATAAGAAAAGCTAACATTCCGATTATGGACACCGGTGAAAACCCAGAGGTTCCCTTCCCCGGGACA
 TGATTGACTTAGAGGCCAATTTTGAAGAAGTTGAAAATGAACTGAAGGAAATCAACACAAACCAGGAAGC
 TCTGAAGAGAACTTCTGGAAGTACCAGAAATTAATTTATACTTCGAAAACCTCAGCAATTTTTTGTGAT
 GAGATGGCGGATCCAGACTTGTGGAAGAGTCTCATCCCTCTGGAGCCAAGTGAGATGGGAAGAGGCA
 CTCCTTTAAGACTTGGCTTCGTGGCTGGTGTCTTAACCGGGAGCGCATCCCTACTTTTGGAGCGCATGCT
 TTGGCGGGTATGCCGGGAAATGTGTTCTGCGACAGGCTGAAATCGAGAACCCCTGGAGGATCCTGTG
 ACTGGCGACTACGTGCACAAGTCTGTGTTTATCATTTTTCTTCAAAGGCGATCAGCTGAAAAACAGAGTCA
 AGAAAATCTGTGAAGGGTCCGAGCCTCACTCTATCCCTGTCTGAGACACCACAGGAGAGGAAGGAAAT
 GGCTTCTGGAGTGAATACCAGGATTGATGATCTCCAAATGGTTCTGAATCAAACGGAGGATCACCGCCAG
 AGGGTTCTGCAGGCAGCTGCTAAGAACATCCGTGTCTGGTTTCAAAAGTGCAGGAAAGTGAAGGCCATCT
 ATCACACCCTGAACCTGTGCAACATAGATGTGACTCAGAAATGCTTGATTGCAGAGGCTGGTGCCTGT
 CACCGACTTGACTCCATCCAGTTTGCCTCAGAAAGGGGACGGAACACAGTGGTCCACTGTACCTTCC
 ATTTTGAACAGGATGCAGACAAACCAGACTCCCCAACCTATAACAAAACCAACAAGTTTACCTATGGCT
 TTCAGAACATAGTATGCTTATGGAATTGGAACCTACCGAGAGATAAATCCAGTCCGTATACTATTAT
 CACGTTCCCTTTTCTATTTGCTGTGATGTTGGAGACTTCGGTTCATGGCATTTTAAATGACCTTTTTGCT
 GTGTGGATGTTACTGAGGAGAGCCGGATCCTTTCCAGAAAGTGAAGTGAAGTGAAGTGTGTTAGCACTGTG
 TCAGTGGTTCGATACATTATTTTATTGATGGGTGTGTTCTCCATGTACTGGCCTCATCTACAATGATTG
 CTTTTCAAGTCTCTAATATCTTTGGGTATCCTGGAGTGTACGGCCGATGTTTACTTATAAATGGACT
 GAAGAGACGTTCCGGGGAAACCCTGTTCTACAGCTGAACCCAGCCCTCCCTGGAGTGTGGTGGACCAT
 ACCCTTTTGGCATTGATCCAATTTGGAACATTGCTACCAATAAACTGACGTTCTTGAACCTCTTAAAGT
 GAAGATGTCTGTTATCCTTGGTATCATCCATATGCTGTTGGAGTCAGCCTGAGTCTGTTCAACCATATC
 TATTTCAAGAAGCCCCTGAATATCTACTTTGGATTTATCCTGAAATAATCTTCATGACCTTTTGTGTTG
 GCTATTTGGTTATCCTTATTTTTACAAGTGGACGGCCTATGATGCTCATACCTCTGAGAATGCACCAAG
 CCTTCTGATCCATTTATAAATATGTTCTCTTTTCTACCCAGAGTCTGGTTATTCAATGTTGATTCT
 GGACAGAAAGGAATTCAGTGTTCCTGGTGTGTTGCACTACTGTGTACCTTGGATGCTGCTGTTTA
 AACCATTTGGTCTTCGCCGTCAGTATTTGAGGAGAAAGCAATTTGGGAACTCTCAACTTTGGTGGGATCAG
 GGTGGGCAACGGACCGACAGAGGAGGATGCTGAGATTATTCAGCATGACCAGCTCTCCACCCACTCAGAG
 GACGCAGACGAGTTTACTTTGGGGACACCATGGTCCACCAGGCCATCCACACCATCGAGTACTGCCTGG
 GCTGCATCTCAAACACTGCCTCTACTTGGGCTCTGGGCCCTCAGCCTCGCTCATGCGCAGCTGTCTGA
 GGTGCTTTGGACCATGGTATCCACATCGGCCTGAGCGTGAAGAGCTTGGCGGGAGGTTTGGTGTCTGTT
 TTCTTCTCACTGCCTTTGCCACCCTGACCGTGGCCATCCTCCTGATCATGGAGGGCCTCTCGGCCCTTC
 TCCACGCACTGCGCTTACTGAGTTGAGTTCCAGAATAAATTCTACAGCGGGACCGGTTTCAAGTTCTT
 ACCCTTCTCCTTCGAGCATATTCGGAAGGGAAGTTTGAAGAG

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC223769 representing NM_005177
Red=Cloning site Green=Tags(s)

MGELFRSEEMTLAQLFLQSEAAYCCVSELGELGKVQFRDLNPDVNVFQRKRVNEVRRCEEMDRKLRVFEK
EIRKANIPIMDTGENPEVPPFRDMIDLEANFEKIENELKEINTNQEALKRNFLTELKFI LRKTQQFFD
EMADPDLL EESSLLEPSEMGRGTPLRLGFVAGVINRERIPTFERMLWRVCRGNVFLRQAEIENPLEDPV
TGDYVHKSVFIIFFQGDQLKNRVKKICEGFRASLYPCPETPQERKEMASGVNTRIDDLQMVLNQTEDHRQ
RVLQAAAANKIRVWFIVKVRMKAIYHTLNL CNIDVTQKCLIAEVWCPVTDLDSIQFALRRGTEHSGSTVPS
ILNRMQTNQTPPTYNKTNKFTYGFQNI VDAYGIGTYREINPAPYTIITFPFLFAVMFGDFGHGILMTLFA
VWMLRESRILSQKNENEMFSTVFSGRYIILLMGVFSMYTGLIYNDCFSKSLNIFGSSWSVRPMFTYNWT
EETLRGNPVLQLNPALPGVFGPYFGIDPIWNIATNKL TFLNSFKMKMSVILGIHMLFGVSLSLFNHI
YFKKPLNIYFGFIP EII FMTSLFGYL VILIFYKWTAYDAHTSENAPSLLIHF INMFLFSYPESGYSMLYS
GQKGIQCFLVVVALLCVPWMLL FKPLVLRROYLRRKHLGTLNFGGIRVGNPTEEDAEIIQHDQLSTHSE
DADEFDFGDMVMHQAIHTIEYCLGCISNTASYLRLWALSLAHAQLSEVLWMTMVIHIGLSVKSLAGGLVLF
FFFTAFATLTVAILLIMEGLSAFLHALRLHWVEFQNKFYSGTGFKFLPFSFEHIREGKFEE

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6204_a10.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:


ACCN: NM_005177

ORF Size: 2493 bp

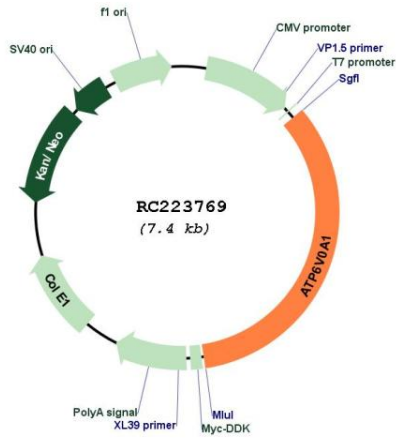
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

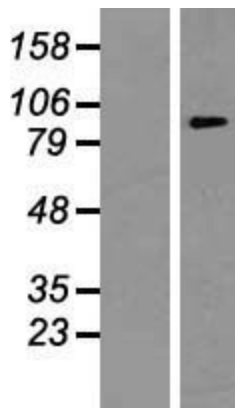
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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_005177.5
RefSeq Size:	4139 bp
RefSeq ORF:	2496 bp
Locus ID:	535
UniProt ID:	Q93050
Cytogenetics:	17q21.2
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
MW:	95.6 kDa
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 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]</p>

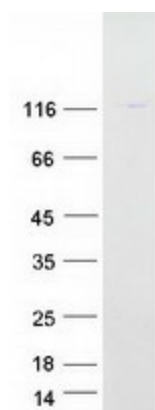
Product images:



Circular map for RC223769



Western blot validation of overexpression lysate (Cat# [LY417468]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223769 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATP6V0A1 protein (Cat# [TP323769]). The protein was produced from HEK293T cells transfected with ATP6V0A1 cDNA clone (Cat# RC223769) using MegaTran 2.0 (Cat# [TT210002]).