

Product datasheet for **RC209462**

ATP6V1B1 (NM_001692) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP6V1B1 (NM_001692) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP6V1B1
Synonyms:	ATP6B1; DRTA2; RTA1B; VATB; VMA2; VPP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209462 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCATGGAGATAGACAGCAGGCCTGGGGGCTCCCCGGCAGTAGCTGCAACCTAGTGCAGCCCGAG
 AACACATGCAGGGGTCACCCGAAACTACATCACCCACCCCGTGTACCTACAGGACTGTGTGCAGTGT
 GAACGGGCCCCTGGTGGTCTGGACCGGTCAAGTTTGCCAGTATGCGGAGATCGTCCACTTACCCTC
 CCAGATGGGACTCAGAGGAGCGGCAGGTGCTTGAGGTGGCTGGCACCAAGGCGATTGTTAGGTGTTT
 AAGGGACATCAGGGATCGATGCCAGGAAGACCCTTGCGAATTTACAGGGGACATCCTACGAACTCCGGT
 GTCAGAGGACATGCTGGGTCGGGTTTTCAATGGCTCCGGCAAGCCATTGACAAGGGGCCAGTGGTCATG
 GCGGAGGACTTTCTGGATATCAATGGCCAGCCATCAACCCGACTCCCGCATCTACCCGAGGAGATGA
 TTCAGACGGGCATTTCTCTATTGACGTCATGAACAGCATTGCCCGGGCCAGAAGATCCCCATCTTCTC
 AGCAGCCGGGCTCCCCACAATGAGATTGCCGCTCAGATCTGCCCGAGGCGGGGCTGGTGAAGAAGTCC
 AAGGCTGTGCTGGATTACCATGACGACAATTCGCCATCGTCTTTGCAGCCATGGGGGTGAACATGGAGA
 CAGCCAGATTCTCAAGTCTGACTTTGAGCAGAATGGAACCATGGGGAACGTCTGCCTTCTCTGAACTT
 GGCCAATGACCCACGATCGAGCGGATCATACCCCGCGCTGGCGCTGACCACTGCTGAATTCCTTGCC
 TACCAGTGTGAGAAGCATGTGCTGGTACTACTGACGGACATGAGTTTCTATGCAGAGGCTTGGGGAGG
 TCTCTGCTGCTAGAGAGGAGGTGCCTGGGCGCCGAGGGTTTCTGGATATATGTACACAGACCTGGCCAC
 CATCTACGAGCGGGCGGGCGTGTGGAGGTGGGGAGGATCCATCACACAGATCCCCATCTCACCATG
 CCCAACGACGATATCACCCACCTATCCAGACTTGACGGGCTTCATCACAGAGGACAGATCTACGTGA
 ACAGACGCTTCAACACAGACAGATCTACCCCCATCAACGTGCTCCCTCCCTGTCGGGCTGATGAA
 GTCAGCCATTGGGGAAGGCATGACAAGAAAGGACCATGGAGATGTCTCAACAGCTGTACGCCTGCTAT
 GCCATCGGGAAGGACGTGACAGCCATGAAGGCAGTAGTTGGGAGGAGGCGCTCACCTCTGAGGACCTGC
 TCTACCTGGAATTCCTGCAGAAGTTTGAAGAAGTTCATCAATCAGGGCCCTACGAGAACCGCTCGGT
 GTTCGAGTCGCTGGACCTGGGCTGGAAGCTGCTGCGCATCTTCCCAAGGAGATGCTGAAGCGCATTCCG
 CAGGCCGTGATCGACGAGTTCTATTCCCGCAGGGGGCGCTGCAGGACCTCGCGCTGACACTGCGCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209462 protein sequence
 Red=Cloning site Green=Tags(s)

MAMEIDSRPGLPGSSCNLGAAREHMQAVTRNYITHPRVYRTVCSVNGPLVVLDRVKFAQYAEIVHFTL
 PDGTQRSGQVLEVAGTKAIVQVFEGTSGIDARKTTCEFTGDILRTPVSEDMGRVFNNGSKPIDKGPVVM
 AEDFLDINGQPINPHSRIYPEEMIQTGISPIDVMNSIARGQKIPFSAAGLPHNEIAAQICRQAGLVKKS
 KAVLDYHDDNFAIVFAAMGVNMETARFFKSDFEQNGTMGNVCLFLNLANPTIERIITPRLALTTAEFLA
 YQCEKHLVILTMSSYAEALREVSAREEVPGRRGFPGYMYTDLATYERAGRVEGRGGSITQIPILTM
 PNDDITHPIPDLTGFITEGQIYVDRQLHNRQIYPPINVLPSSLRLMKSALGEGMTRKDHGDVSNQLYACY
 AIGKDVQAMKAVVGEEALTSEDLLYLEFLQKFEKNFINQGPYENRSVFESLDLWKLRLIFPKEMLKRIIP
 QAVIDEFYSREGALQDLAPDTAL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6198_a09.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001692

ORF Size: 1539 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_001692.4](#)

RefSeq Size: 1956 bp

RefSeq ORF: 1542 bp

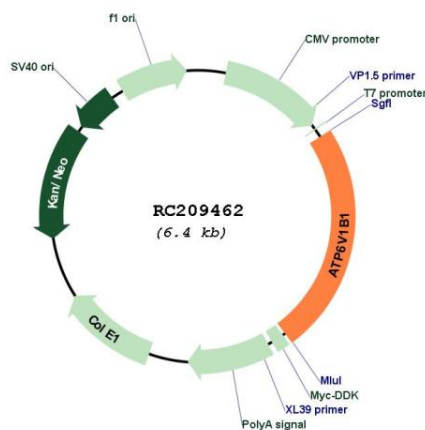
Locus ID: 525

UniProt ID: [P15313](#)

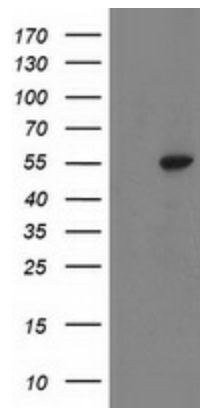
Cytogenetics: 2p13.3

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
MW:	56.8 kDa
Gene Summary:	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 B subunit isoforms and is found in the kidney. Mutations in this gene cause distal renal tubular acidosis associated with sensorineural deafness. [provided by RefSeq, Jul 2008]

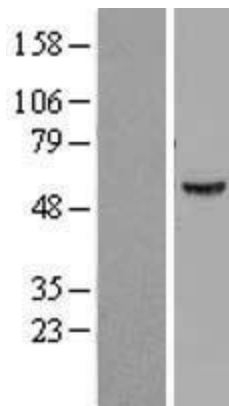
Product images:



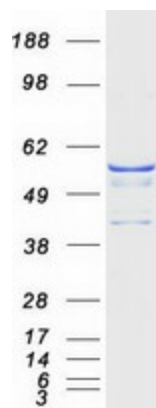
Circular map for RC209462



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ATP6V1B1 (Cat# RC209462, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ATP6V1B1 (Cat# [TA502677]). Positive lysates [LY400635] (100ug) and [LC400635] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400635]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209462 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATP6V1B1 protein (Cat# [TP309462]). The protein was produced from HEK293T cells transfected with ATP6V1B1 cDNA clone (Cat# RC209462) using MegaTran 2.0 (Cat# [TT210002]).