

## Product datasheet for **RC205447**

### **ATP6V1B2 (NM\_001693) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ATP6V1B2 (NM_001693) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP6V1B2
Synonyms:	ATP6B1B2; ATP6B2; DOOD; HO57; VATB; Vma2; VPP3; ZLS2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC205447 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGCTGCGGGCGATGCGGGGGATTGTCAACGGGGCCGACCCGAGCTACCCGTGCCACCGGTGGG  
 CGGCGGTGGGAGCTCAGGAGCAGGCGCTGGCAGTCAGTCGGAACCTCTCCAGCCTCGCTCACATA  
 CAAGACAGTATCTGGAGTCAATGGTCCACTAGTGATCTTAGATCATGTTAAGTTTCCAGGTATGCTGAA  
 ATTGTCCATTTGACCTTACCGGATGGCACAAGAGAAGTGGCAAGTTCTGGAAGTTAGTGGTTCCAAGG  
 CAGTAGTTCAGGTATTTGAAGGGACTTCAGGTATAGATGCTAAGAAAACGTCCTGTGAGTTTACTGGGA  
 TATTCTCCGAACACCGGTGTCTGAGGATATGCTTGGTGGGTATTCAATGGATCGGAAAACCCATTGAC  
 AGAGGCTCTGTTGACTGGCCGAAGACTTCCTTGATATCATGGGTGAGCAATCAACCCTCAATGTCGAA  
 TCTACCCAGAGGAATGATTCGGACTGGCATTTCGGCCATCGATGGGATGAACAGTATTGCTAGGGGGCA  
 GAAAATTCCTATCTTCTGCTGCTGGGCTACCACACAATGAGATTGCAGCTCAGATCTGTCGCCAGGCT  
 GGTGGTAAAGAAATCCAAAGATGTAGTAGACTACAGTGAGGAAAATTTTGAATTTGATTTGCTGCTA  
 TGGGTGTAACATGGAACTGCCGGTTCTTCAATCTGACTTTGAAGAAAATGGCTCAATGGACAATGT  
 CTGCCTCTTTTGAACCTGGCTAATGACCAACCATTTAGCGAATTATCACTCCTCGCCTGGCTCTAAC  
 ACAGCTGAATTTCTGGCGTACCAATGTGAGAAACATGTATTGGTTATTCTAACAGACATGAGTTCTTATG  
 CTGAAGCACTTCGAGAGGTTTCAGCAGCCAGGGAAGAGGTACCTGGTTCGACGAGGTTTTCCAGGTTACAT  
 GTATACAGATTTAGCCACGATATATGAACGCGCTGGGCGAGTGGGAGGGAGAAACGGCTCGATTACTCAA  
 ATCCCTATTCTAACCATGCCTAATGATGATATCACTCACCCATCCCAGACTTACTGGCTACATTACAG  
 AGGGCGAGATCTATGTGGACAGACAGCTGCACAACAGACAGATTTATCCACCTATCAATGTGCTGCCCTC  
 ACTATCACGGTTAATGAAGTCTGCTATTGGAGAAGGGATGACCAGGAAGGATCATGCCGATGTATCTAAC  
 CAGCTATATGCGTGTATGCTATTGAAAAGGATGTGCAAGCCATGAAAGCTGTCGTTGGAGAAGAAGCCC  
 TTACCTCAGATGATCTTCTACTTGGAAATTTCTGCAGAAGTTTGGAGGAACTTCATTGCTCAGGGTCC  
 TTACGAAAATCGCACTGTCTTTGAGACTTTGGACATTGGCTGGCAGCTACTCCGAATCTTCCCAAAGAA  
 ATGCTGAAGAGAATCCCTCAGAGCACCTCAGCGAATTTTACCCTCGAGACTCTGCAAAGCAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC205447 protein sequence  
 Red=Cloning site Green=Tags(s)

MALRAMRGIVNGAAPPELVPVTPGGPAVGAQEQALAVSRNYLSQPRLTYKTVSGVNGPLVILDHVKFPRYAE  
 IVHLTLPDGTKRSGQVLEVSGSKAVVQVFEGTSGIDAKKTSCEFTGDILRTPVSEDMLGRVFNNGSKPID  
 RGPVVLAEFDLIMGQPINPQCRIYPEEMIRTGISAIDGMNSIARGQKIPIFSAAGLPHNEIAAQICRQA  
 GLVKKSKDVVDYSEENFAIVFAAMGVNMETARFFKSDFEENGSMNDVCLFLNLANPTIERIITPRLALT  
 TAEFLAYQCEKHVILVILDMSSYAEALREVSAAAREEVPGRRFPGYMYTDLATIERAGRIVGGRNGSITQ  
 IPILTMPNDDITHPIPDLTGYITEGQIYVDRQLHNRQIYPPINVLPSSLRLMKSALGEGMTRKDHADVSN  
 QLYACYAIGKDVQAMKAVVGEEALTSDDLLEYLFLQKFERNFIAQGPYENRTVFETLDIGWQLLRIFPKE  
 MLKRIQSTLSEFYPRDSAKH

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6313\\_f09.zip](https://cdn.origene.com/chromatograms/mk6313_f09.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001693

**ORF Size:** 1533 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 Size:** 3054 bp

**RefSeq ORF:** 1536 bp

**Locus ID:** 526

**UniProt ID:** [P21281](#)

**Cytogenetics:** 8p21.3

**Domains:** ATP-synt\_ab, ATP-synt\_ab\_C, ATP-synt\_ab\_N

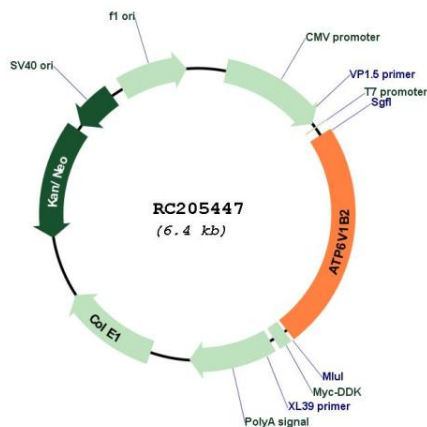
**Protein Families:** Druggable Genome

**Protein Pathways:** Epithelial cell signaling in Helicobacter pylori infection, Metabolic pathways, Oxidative phosphorylation, Vibrio cholerae infection

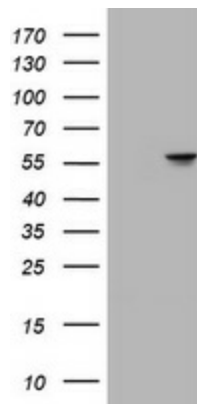
**MW:** 56.4 kDa

**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, three B, and two G subunits, as well as a C, D, E, F, and H subunit. The V1 domain contains the ATP catalytic site. The protein encoded by this gene is one of two V1 domain B subunit isoforms and is the only B isoform highly expressed in osteoclasts. [provided by RefSeq, Jul 2008]

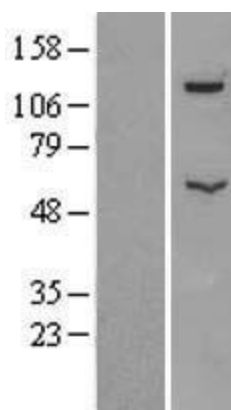
**Product images:**



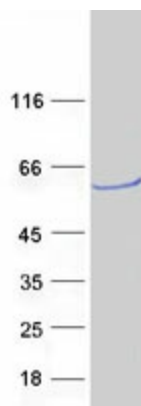
Circular map for RC205447



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ATP6V1B2 (Cat# RC205447, 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-ATP6V1B2 (Cat# [TA505244]). Positive lysates [LY419793] (100ug) and [LC419793] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419793]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205447 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATP6V1B2 protein (Cat# [TP305447]). The protein was produced from HEK293T cells transfected with ATP6V1B2 cDNA clone (Cat# RC205447) using MegaTran 2.0 (Cat# [TT210002]).