

## Product datasheet for RC236579

### ATP1B2 (NM\_001303263) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** ATP1B2 (NM\_001303263) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** ATP1B2  
**Synonyms:** AMOG  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC236579 representing NM\_001303263  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGATTCGCCCAAGACTGAGAACCTTGATGTCATTGTCAATGTCAGTGACACTGAAAGCTGGGACCAGC  
 ATGTTTCAGAAGCTCAACAAGTTCTTGGAGCCTTACAACGACTCTATCCAAGCCAAAAGAATGATGTCTG  
 CCGCCCTGGAGCCTATTACGAACAGCCAGATAATGGAGTCTCACTACCCCAAACGTGCCTGCCAATTC  
 AACCGGACCCAGCTGGGCAACTGCTCCGGCATTGGGGACTCCACCCACTATGTTTACAGCACTGGGCAAGC  
 CCTGTGTCTTCAAGATGAACCGGGTCACTCACTTCTATGCAGGAGCAAACCAGAGCATGAATGTTAC  
 CTGTGCTGGGAAGCGAGATGAAGATGCTGAGAATCTCGGCAACTTCGTCATGTTCCCGCCAACGGCAAC  
 ATCGACCTCATGTACTTCCCCTACTATGGCAAAAAGTTCCACGTGAACTACACACAGCCCTGGTGGCTG  
 TGAAGTTCCTGAATGTGACCCCAACGTGGAGGTGAATGTAGAATGTCGCATCAACGCCCAACATCGC  
 CACAGACGATGAGCGAGACAAGTTCGCCGGCCGCTGGCCTTCAAACCCGCATCAACAAAACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC236579 representing NM\_001303263  
 Red=Cloning site Green=Tags(s)

MIRPKTENLDVIVNVSDTESWDQHVQKLNKFLPEYNDSIQAKNDVCRPGRYEQPDNGVLNYPKRACQF  
 NRTQLGNCSGIGDSTHYGSTGQPCVF IKMNRVINFYAGANQSMNVT CAGKRDEDAENLGNFVMFPANGN  
 IDLMYFPYYGKFFHVNYTQPLVAVKFLNVTNVEVNECRINAANIATDDERDKFAGRVAFLKRLINKT

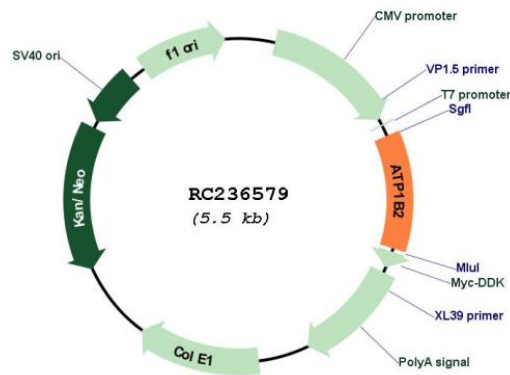
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001303263

**ORF Size:** 624 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\\_001303263.1](#), [NP\\_001290192.1](#)

**RefSeq Size:** 2601 bp

**RefSeq ORF:** 627 bp

**Locus ID:** 482

**UniProt ID:** [P14415](#)

**Cytogenetics:** 17p13.1

**Protein Families:** Transmembrane

**Protein Pathways:** Cardiac muscle contraction

**MW:** 24.1 kDa

**Gene Summary:** The protein encoded by this gene belongs to the family of Na<sup>+</sup>/K<sup>+</sup> and H<sup>+</sup>/K<sup>+</sup> ATPases beta chain proteins, and to the subfamily of Na<sup>+</sup>/K<sup>+</sup> -ATPases. Na<sup>+</sup>/K<sup>+</sup> -ATPase is an integral membrane protein responsible for establishing and maintaining the electrochemical gradients of Na and K ions across the plasma membrane. These gradients are essential for osmoregulation, for sodium-coupled transport of a variety of organic and inorganic molecules, and for electrical excitability of nerve and muscle. This enzyme is composed of two subunits, a large catalytic subunit (alpha) and a smaller glycoprotein subunit (beta). The beta subunit regulates, through assembly of alpha/beta heterodimers, the number of sodium pumps transported to the plasma membrane. The glycoprotein subunit of Na<sup>+</sup>/K<sup>+</sup> -ATPase is encoded by multiple genes. This gene encodes a beta 2 subunit. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2014]