

Product datasheet for RC220004

ATP1B2 (NM_001678) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP1B2 (NM_001678) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP1B2
Synonyms:	AMOG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220004 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGTCATCCAGAAAGAGAAGAAGAGCTGCGGGCAGGTGGTTGAGGAGTGAAGGAGTTCGTGTGGAACC
CGAGGACGCACCAGTTTATGGGCCGCACCGGGACCAGCTGGGCCTTTATCCTCCTCTTCTACCTCGTTTT
TTATGGGTTCTCACCGCATGTTACCCTCACCATGTGGGTGATGCTGCAGACTGTCTCCGACCATAACC
CCCAAGTACCAGGACCGACTGGCCACACCGGGCTTGATGATTCGCCCCAAGACTGAGAACCTTGATGTCA
TTGTCAATGTGACTGACTGAAAGCTGGGACCAGCATGTTCAAGAGCTCAACAAGTTCTTGAGCCTTA
CAACGACTCTATCCAAGCCAAAAGAATGATGTCTGCCGCCCTGGGCGCTATTACGAACAGCCAGATAAT
GGAGTCTCAACTACCCAAACGTGCCTGCCAATTCAACCGGACCCAGCTGGGCAACTGCTCCGGCATTG
GGGACTCCACCCACTATGGTTACAGCACTGGGCAGCCCTGTGTCTTCAAGATGAACCGGGTCATCAA
CTTCTATGCAGGAGCAAACCAGAGCATGAATGTTACCTGTGCTGGGAAGCGAGATGAAGATGCTGAGAA
CTCGGCAACTTCGTATGTTCCCGCCAACGGCAACATCGACCTCATGTACTTCCCCTACTATGGCAAAA
AGTTCCACGTGAACACACAGCCCTGGTGGCTGTGAAGTTCCTGAATGTGACCCCAACGTGGAGGT
GAATGTAGAATGTCGCATCAACGCCCAACATCGCCACAGACGATGAGCGAGACAAGTTCGCCGGCCGC
GTGGCCTTCAAACCTCCGCATCAACAAAACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC220004 protein sequence
Red=Cloning site Green=Tags(s)

MVIQKEKKSCGQVVEEWKEFVWNPRTHQFMGRTGTSWAFILLFYLVFYGFLTAMFTLTMWVMLQTVSDHT
 PKYQDRLATPGLMIRPKTENLDVIVNVSDETSWDQHVQKLNKFLPEYNDISIQAQKNDVCRPGRYYEQPDN
 GVLNYPKRACQFNRTQLGNCSGIGDSTHYGYSTGQPCVF IKMNRVINFYAGANQSMNVTCAGKRDEDAEN
 LGNFVMPFANGNIDLMYFPYYGKKFHVNYTQPL VAVKFLNVTNVEVNVVECRINAANIATDDERDKFAGR
 VAFKLRINKT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6465_d04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001678

ORF Size: 870 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001678.3](#), [NP_001669.3](#)

RefSeq Size: 3350 bp

RefSeq ORF: 873 bp

Locus ID: 482

UniProt ID: [P14415](#)

Cytogenetics: 17p13.1

Domains: Na_K-ATPase

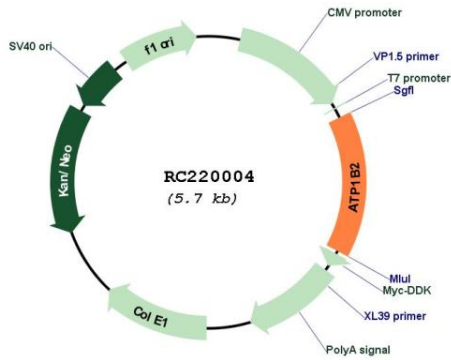
Protein Families: Transmembrane

Protein Pathways: Cardiac muscle contraction

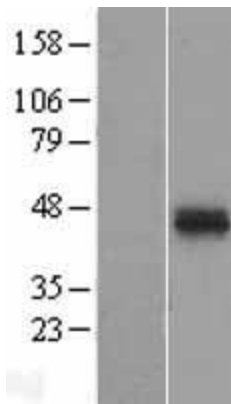
MW: 33.4 kDa

Gene Summary: The protein encoded by this gene belongs to the family of Na⁺/K⁺ and H⁺/K⁺ ATPases beta chain proteins, and to the subfamily of Na⁺/K⁺ -ATPases. Na⁺/K⁺ -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⁺/K⁺ -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]

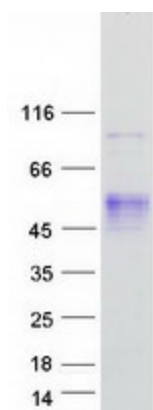
Product images:



Circular map for RC220004



Western blot validation of overexpression lysate (Cat# [LY419811]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220004 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATP1B2 protein (Cat# [TP320004]). The protein was produced from HEK293T cells transfected with ATP1B2 cDNA clone (Cat# RC220004) using MegaTran 2.0 (Cat# [TT210002]).