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Product datasheet for RC203198

ATP1A3 (NM_152296) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP1A3 (NM_152296) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP1A3
Synonyms:	AHC2; ATP1A1; CAPOS; DYT12; RDP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203198 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGGACAAGAAAGATGACAAGGACTCACCCAAGAAGAACAAGGGCAAGGAGCGCCGGGACCTGGATG
ACCTCAAGAAGGAGGTGGCTATGACAGAGCACAAGATGTCAGTGGAAGAGGTCTGCCGGAAATACAACAC
AGACTGTGTGCAGGGTTTGACCCACAGCAAAGCCCAGGAGATCCTGGCCCGGGATGGGCCTAACGCACTC
ACGCCACCGCCTACCACCCCAGAGTGGGTCAAGTTTTGCCGGCAGCTCTTCGGGGGCTTCTCCATCCTGC
TGTGGATCGGGGCTATCCTCTGCTTCCTGGCCTACGGTATCCAGGCGGGCACCGAGGACGACCCCTCTGG
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GAGGCCAAGAGCTCCAAGATCATGGAGTCCTTCAAGAACATGGTGCCCCAGCAAGCCCTGGTGATCCGGG
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AACCGATACCTGCTGGTGATGAAGGGTGCCCCCGAGCGCATCCTGGACCGCTGCTCCACCATCCTGCTAC
AGGGCAAGGAGCAGCCTCTGGACGAGGAAATGAAGGAGGCCTTCCAGAATGCCTACCTTGAGCTCGGTGG
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203198 protein sequence
Red=Cloning site Green=Tags(s)

MGDKKDDKDSPKKNKGKERRDLDDLKKEVAMTEHKMSVEEVCRKYNTDCVQGLTHSKAQEILARDGPNAL
TPPPTTPEWVKFCRQLFGGFSILLWIGAILCFLAYGIQAGTEDDPSGDNLYLGIVLAAVVIITGCFSYYQ
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FIQLITGVAVFLGVSFFILSLILGYTWLEAVIFLIGIIVANVPEGLLATVTVCLTLTAKRMARKNCLVKN
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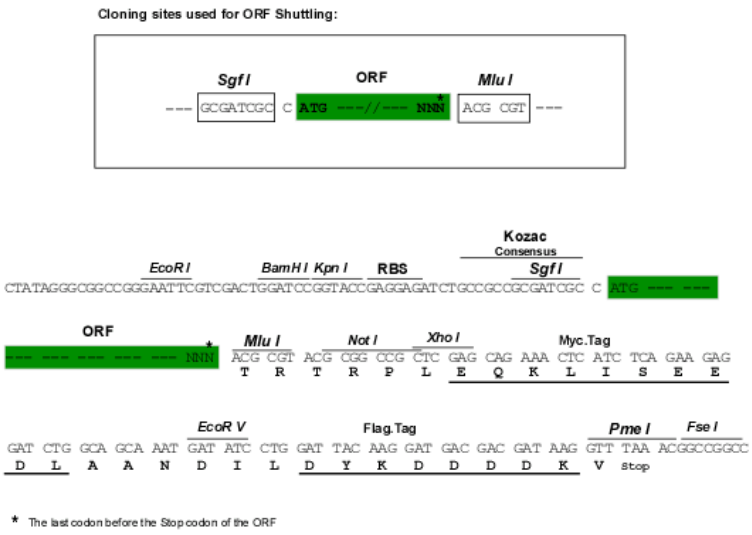
IVAVTGDGVNDSPALKKADIGVAMGIAGSDVSKQAADMILLDDNFASIVTGVEEGRLIFDNLKKSIAYTL
TSNIPEITPFLLFIMANIPLPLGTITILCIDLGTDMVPAISLAYEAAESDIMKRQPRNPRTDKLVNERLI
SMAYGQIGMIQALGGFFSYFVILAENGFLPGNLVGIRLNWDDRTVNDLEDSYGQQWTYEQRKVVEFTCHT
AFFVSIVVVQWADLIICKTRRNSVFQQGMKNKILIFGLFEETALAAFLSYCPGMDVALRMYPLKPSWWFC
AFPYSFLIFVYDEIRKLILRRNPGGWVEKETYY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6220_h06.zip

Restriction Sites: SgfI-MluI

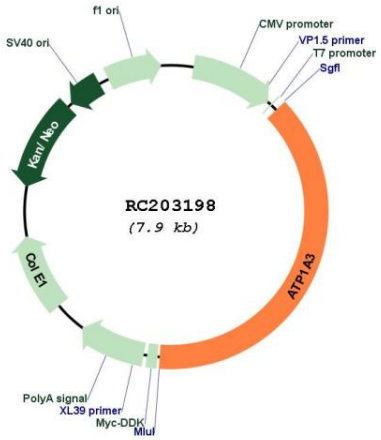
Cloning Scheme:



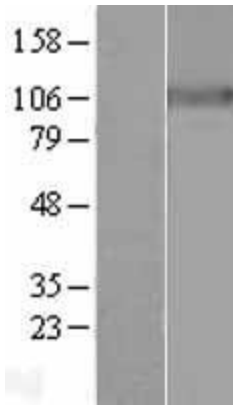
ACCN:	NM_152296
ORF Size:	3039 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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_152296.2
RefSeq Size:	3635 bp

RefSeq ORF:	3042 bp
Locus ID:	478
UniProt ID:	P13637
Cytogenetics:	19q13.2
Domains:	E1-E2_ATPase, Cation_ATPase_N, Hydrolase, Cation_ATPase_C
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Cardiac muscle contraction
MW:	111.7 kDa
Gene Summary:	The protein encoded by this gene belongs to the family of P-type cation transport ATPases, 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 catalytic subunit of Na+/K+ -ATPase is encoded by multiple genes. This gene encodes an alpha 3 subunit. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]

Product images:



Circular map for RC203198



Western blot validation of overexpression lysate (Cat# [LY407655]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203198 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).