

Product datasheet for RC201687

ATP5F1C (NM_001001973) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP5F1C (NM_001001973) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP5F1C
Synonyms:	ATP5C; ATP5C1; ATP5CL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201687 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGTTCTCTCGCGGGTGTGCTGGGCTGTGGCCTGGACCTTGACGCCGAATGGATTCAAGTTCGAA
 ATATGGCAACTTTGAAAGATATCACCAGGAGACTAAAGTCCATCAAAACATCCAGAAAATTACCAAGTC
 TATGAAAATGGTAGCGGCAGCAAAATATGCCCAGCTGAGAGAGAGCTGAAACCAGCTCGAATATATGGA
 TTGGGATCTTTAGCTCTGTATGAAAAAGCTGATATCAAGGGGCCTGAAGACAAGAAGAAACACCTCCTTA
 TTGGTGTGTCCTCAGATCGAGGACTGTGTGGTGTATTTCATTCTCCATTGCTAAACAGATGAAAAGCGA
 GGTGCTACACTAACAGCAGCTGGGAAAGAAGTTATGCTTGTGGAATTGGTGACAAAATCAGAGGCATA
 CTTTATAGGACTCATTCTGACCACTTTCTGGTGGCATTCAAAGAAGTGGGAAGAAAGCCCCCACTTTTG
 GAGATGCGTCAGTCATTGCCCTTGAATTACTAAATTCTGGATATGAATTTGATGAAGGCTCCATCATCTT
 TAATAAATTCAGGTCTGTCTATCTCTATAAGACAGAAGAAAGCCCATCTTTCCCTTAATACCGTTGCA
 AGTGCTGACAGCATGAGTATCTATGACGATATTGATGCTGACGTGCTGCAAAATTACCAAGAATACAATC
 TGGCCAACATCATCTACTCTCTGAAGGAGTCCACCACTAGTGAGCAGAGTGCCAGGATGACAGCCAT
 GGACAATGCCAGCAAGAATGCTTCTGAGATGATTGACAAATTGACATTGACATTCAACCGTACCCGCCAA
 GCTGTCATCAGCAAGAGTTGATTGAAATTATCTCTGGTGTGCTGCAGCTCTGGAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC201687 protein sequence
 Red=Cloning site Green=Tags(s)

MFSRAGVAGLSAWTLQPQWIQVRNMTLKDITRRLKSIKNIQKITKSMKMVAAAKYARAERELKPARIYG
 LGSLALYEKADIKGPEDKKHLLIGVSSDRGLCGAIHSSIAKQMKSEVATLTAAGKEVMLVGIGDKIRGI
 LYRTHSDQFLVAFKEVGRKPPTFGDASVIALELLNSGYEFDEGSIIFNKFRSVISYKTEEKPIFSLNTVA
 SADSMSIYDDIDADVLQNYQEYNLANIIYSLKESTTSEQSARMTAMDNASKNASEMIDKLTFTNRTRQ
 AVITKELIEIISGAAALD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6541_d07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001001973

ORF Size: 894 bp

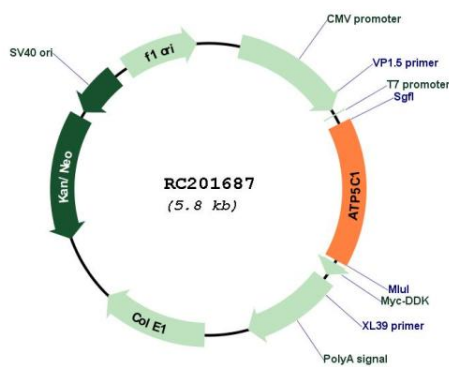
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

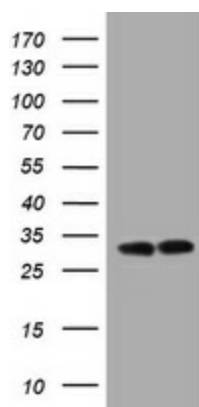
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none"> 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:	<u>NM_001001973.3</u>
RefSeq Size:	1162 bp
RefSeq ORF:	897 bp
Locus ID:	509
UniProt ID:	<u>P36542</u>
Cytogenetics:	10p14
Protein Pathways:	Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW:	33 kDa
Gene Summary:	<p>This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, utilizing an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. ATP synthase is composed of two linked multi-subunit complexes: the soluble catalytic core, F1, and the membrane-spanning component, Fo, comprising the proton channel. The catalytic portion of mitochondrial ATP synthase consists of 5 different subunits (alpha, beta, gamma, delta, and epsilon) assembled with a stoichiometry of 3 alpha, 3 beta, and a single representative of the other 3. The proton channel consists of three main subunits (a, b, c). This gene encodes the gamma subunit of the catalytic core. Alternatively spliced transcript variants encoding different isoforms have been identified. This gene also has a pseudogene on chromosome 14. [provided by RefSeq, Jul 2008]</p>

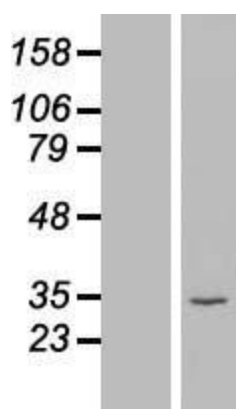
Product images:



Circular map for RC201687



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ATP5C1 (Cat# RC201687, 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-ATP5C1 (Cat# [TA800835]). Positive lysates [LY424302] (100ug) and [LC424302] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424302]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201687 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).