

Product datasheet for **RC200691**

ATP5PF (NM_001685) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATP5PF (NM_001685) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ATP5PF
Synonyms: ATP5; ATP5A; ATP5J; ATPM; CF6; F6
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC200691 representing NM_001685
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATTCTTCAGAGGCTCTTCAGGTTCTCCTCTGTTCATTCGGTCAGCCGTCTCAGTCCATTTGCGGAGGA
ACATTGGTGTACAGCAGTGGCATTAAATAAGGAACTTGATCCTATACAGAACTCTTTGTGACAAGAT
TAGAGAATACAAATCTAAGCGACAGACATCTGGAGGACCTGTTGATGCTAGTTCAGAGTATCAGCAAGAG
CTGGAGAGGGAGCTTTTTAAGCTCAAGCAAATGTTTGGTAATGCAGACATGAATACATTTCCACCTTCA
AATTTGAAGATCCCAAATTTGAAGTCATCGAAAAACCCAGGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200691 representing NM_001685
 Red=Cloning site Green=Tags(s)
 MILQRLFRFSSVIRSAVSVHLRRNIGVTAVAFNKELDPIQKLFVDKIREYKSKRQTSGGPVDASSEYQQE
 LERELFKLKQMFGNADMNTFPTFKFEDPKFEVIEKPQA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3289_f09.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_001685

ORF Size: 324 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_001685.4](#), [NP_001676.2](#)

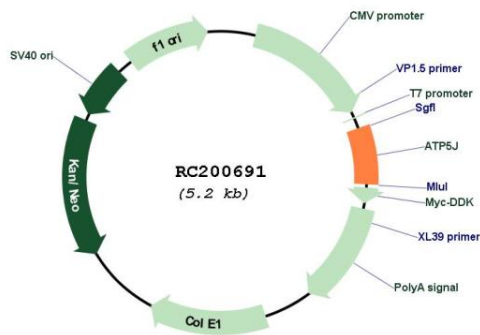
RefSeq Size: 1167 bp

RefSeq ORF: 327 bp

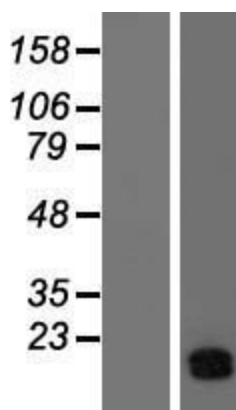
Locus ID: 522

UniProt ID: [P18859](#)
Cytogenetics: 21q21.3
Protein Pathways: Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW: 12.59 kDa
Gene Summary: Mitochondrial ATP synthase catalyzes ATP synthesis, utilizing an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. It is composed of two linked multi-subunit complexes: the soluble catalytic core, F1, and the membrane-spanning component, Fo, which comprises the proton channel. The F1 complex consists of 5 different subunits (alpha, beta, gamma, delta, and epsilon) assembled in a ratio of 3 alpha, 3 beta, and a single representative of the other 3. The Fo complex has nine subunits (a, b, c, d, e, f, g, F6 and 8). This gene encodes the F6 subunit of the Fo complex. The F6 subunit is required for F1 and Fo interactions. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. This gene has 1 or more pseudogenes. [provided by RefSeq, Feb 2016]

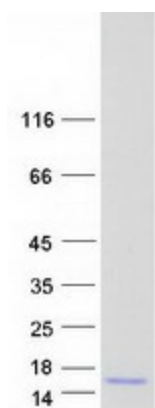
Product images:



Circular map for RC200691



Western blot validation of overexpression lysate (Cat# [LY423989]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC221163] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATP5PF protein (Cat# [TP300691]). The protein was produced from HEK293T cells transfected with ATP5PF cDNA clone (Cat# RC200691) using MegaTran 2.0 (Cat# [TT210002]).