

Product datasheet for **RC202789**

ATP5MF (NM_004889) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATP5MF (NM_004889) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ATP5MF
Synonyms: ATP5J2; ATP5JL
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202789 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGTCAGTTGGTGAGTGTCCGGCCCCAGTACCAGTGAAGGACAAGAACTTCTGGAGGTCAAACCTC
TGGAGCTGCCAAGCTGGATCTTGATGCGGGACTTCAGTCCTAGTGGCATTTCGGAGCGTTTCAAAGAGG
TTACTACCGTACTACAACAAGTACATCAATGTGAAGAAGGGGAGCATCTCGGGATTACCATGGTGCTG
GCATGCTACGTGCTCTTAGCTACTCCTTTCTACAAGCATCTCAAGCACGAGCGGCTCCGAAATACC
AC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202789 protein sequence
Red=Cloning site Green=Tags(s)
MASVGECPAPVPVKDKLLEVKLLELPSWILMRDFSPSGIFGAFQRYRYRYNKYINVKKGSI~~SGITMVL~~
ACYVLF~~SYFSYKHLKHERLRKYH~~

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6415_f12.zip

Restriction Sites: SgfI-MluI



[View online »](#)

Cloning Scheme:


ACCN: NM_004889

ORF Size: 282 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_004889.5](#)

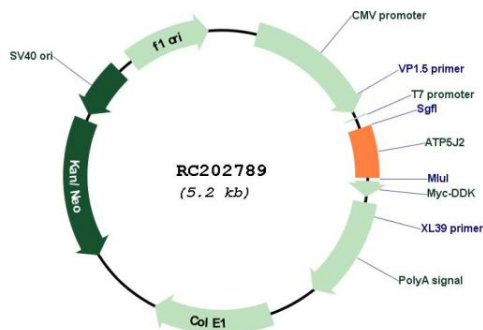
RefSeq Size: 528 bp

RefSeq ORF: 285 bp

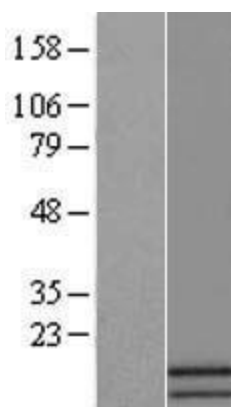
Locus ID: 9551
UniProt ID: [P56134](#)
Cytogenetics: 7q22.1
Protein Families: Transmembrane
Protein Pathways: Metabolic pathways, Oxidative phosphorylation
MW: 11 kDa
Gene Summary:

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 catalytic portion of mitochondrial ATP synthase consists of five different subunits (alpha, beta, gamma, delta, and epsilon) assembled with a stoichiometry of 3 alpha, 3 beta, and single representatives of the gamma, delta, and epsilon subunits. The proton channel likely has nine subunits (a, b, c, d, e, f, g, F6 and 8). This gene encodes the f subunit of the Fo complex. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. This gene has multiple pseudogenes. Naturally occurring read-through transcription also exists between this gene and the downstream pentatricopeptide repeat domain 1 (PTCD1) gene. [provided by RefSeq, Nov 2010]

Product images:



Circular map for RC202789



Western blot validation of overexpression lysate (Cat# [LY417675]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202789 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).