

Product datasheet for **RC221359**

ATP5E (NM_001001977) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATP5E (NM_001001977) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ATP5E
Synonyms: ATPE; MGC104243
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC221359 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGGCCTACTGGAGACAGGCTGGACTCAGCTACATCCGATACTCCAGATCTGTGCAAAGCAGTGA
GAGATGCACTGAAGACAGAATTCAAAGCAAATGCTGAGAAGACTTCTGGCAGCAACGTAAAAATTGTGAA
AGTAAAGAAGGAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221359 protein sequence
Red=Cloning site Green=Tags(s)

MVAYWRQAGLSYIRYSQICAKAVRDALKTEFKANAECTSGSNVKIVKVKKE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6555_h01.zip

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_001001977

ORF Size: 153 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.

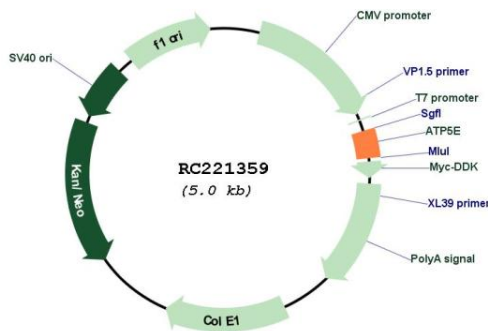
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001001977.1](#), [NP_001001977.1](#)

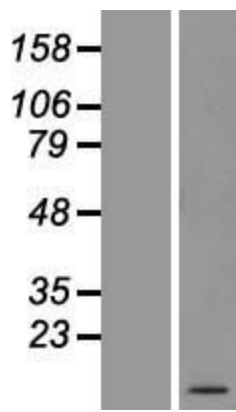
RefSeq Size: 449 bp
RefSeq ORF: 155 bp
Locus ID: 514
Cytogenetics: 20q13.32
Protein Pathways: Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW: 5.8 kDa

Gene Summary: 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, F_o, 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 epsilon subunit of the catalytic core. Two pseudogenes of this gene are located on chromosomes 4 and 13. Read-through transcripts that include exons from this gene are expressed from the upstream gene SLMO2.[provided by RefSeq, Mar 2011]

Product images:



Circular map for RC221359



Western blot validation of overexpression lysate (Cat# [LY424306]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221359 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).