

Product datasheet for **RC204991**

ATP5PO (NM_001697) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP5PO (NM_001697) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP5PO
Synonyms:	ATP5O; ATPO; HMC08D05; OSCP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204991 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGCCCCAGCAGTGTCCGGGCTCTCCGGCAGGTGCGATGCTTCAGTACCTCTGTGGTCAGACCAT
TTGCCAAGCTTGTGAGGCCTCCTGTTCCAGGTATACGGTATTGAAGGTCGCTATGCCACAGCTCTTTATTC
TGCTGCATCAAAACAGAATAAGCTGGAGCAAGTAGAAAAGGAGTTGTTGAGAGTAGCACAATCCTGAAG
GAACCCAAAGTGGCTGCTTCTGTTTTGAATCCCTATGTGAAGCGTCCATTAAAGTGAAAAGCCTAAATG
ACATCACAGCAAAGAGAGGTTCTCTCCCCTCACTACCAACCTGATCAATTTGCTTGCTGAAAATGGTCCG
ATTAAGCAATACCCAAGGAGTCGTTTCTGCCTTTTCTACCATGATGAGTGTCCATCGCGGAGAGGTACCT
TGACAGTGACCTCTGCATCTCCTTTAGAAGAAGCCACACTCTCTGAATTAATAACTGTCCTCAAGAGCT
TCCTAAGTCAAGGCCAAGTATTGAAATTGGAGGCTAAGACTGATCCGTAATCTTGGGTGGAATGATTGT
GCGCATTGGCGAGAAATATGTTGACATGTCTGTCAAGACCAAGATTGAGAAGCTGGGCAGGGCTATGCGG
GAGATTGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204991 protein sequence
Red=Cloning site Green=Tags(s)

MAAPAVSGLSRQVRCFSTSVVRPF AKLVRPPVQVYVYIEGRYATALYSAASKQNKLEQVEKELLRVAQILK
 EPKVAASVLPYVKRSIKVKSLNDITAKERFSPLTTNLINLLAENGRLSNTQGVVSAFSTMMSVHRGEVP
 CTVTSASPLEEATLSELKTVLKSFLSQGQVLKLEAKTDP SILGGMIVRIGEKEYVDM SVKTKIQKLG RAMR
 EIV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6426_a02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001697

ORF Size: 639 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_001697.1](#)

RefSeq Size: 815 bp

RefSeq ORF: 642 bp

Locus ID: 539

UniProt ID: [P48047](#)

Cytogenetics: 21q22.11

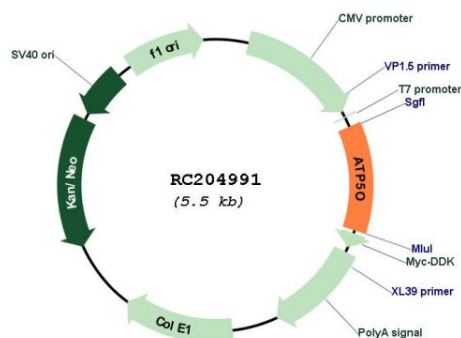
Domains: OSCP

Protein Pathways: Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease

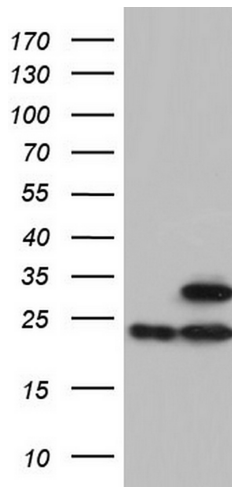
MW: 23.3 kDa

Gene Summary: The protein encoded by this gene is a component of the F-type ATPase found in the mitochondrial matrix. F-type ATPases are composed of a catalytic core and a membrane proton channel. The encoded protein appears to be part of the connector linking these two components and may be involved in transmission of conformational changes or proton conductance. [provided by RefSeq, Jul 2008]

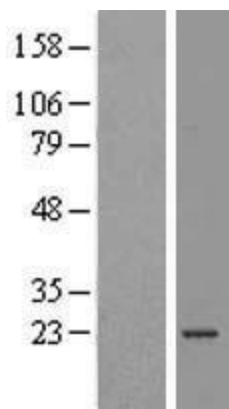
Product images:



Circular map for RC204991



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ATP5O (Cat# RC204991, 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-ATP5O (Cat# [TA804572]). Positive lysates [LY419797] (100ug) and [LC419797] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419797]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204991 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATP5PO protein (Cat# [TP304991]). The protein was produced from HEK293T cells transfected with ATP5PO cDNA clone (Cat# RC204991) using MegaTran 2.0 (Cat# [TT210002]).