

## Product datasheet for **RC205088**

### ATP5PB (NM\_001688) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ATP5PB (NM_001688) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP5PB
Synonyms:	ATP5F1; PIG47
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205088 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGTCCCGGGTGGTACTTTCCGCCGCCACAGCGGCCCTCTCTGAAGAATGCAGCCTTCCTAG  
GTCCAGGGGATTGCAGGCAACAAGGACCTTTCATACAGGGCAGCCACACCTTGCCCTGTACCACCTCT  
TCCTGAATACGGAGGAAAAGTTCGTTATGGACTGATCCCTGAGGAATCTTCCAGTTTCTTATCCTAAA  
ACTGGTGAACAGGACCCTATGTACTCGGAAGTGGCTTATCTTGTACGCTTTATCCAAAGAAATATATG  
TGATTAGCGCAGAGACCTTCACTGCCCTATCAGTACTAGGTGTAATGGTCTATGGAATAAAAAATATGG  
TCCTTTGTTGCAGACTTGGCTGATAAACTCAATGAGCAAAAAGTGGCCAACTAGAAGAGGCGAAGCAG  
GCTTCCATCCAACACATCCAGAATGCAATTGATACGGAGAAGTCACAACAGGCACTGGTTTCAAGAGCGCC  
ATTACCTTTTGTATGTGCAAAGGAATAACATTGCTATGGCTTTGGAAAGTTACTTACCGGGAACGACTGTA  
TAGAGTATATAAGGAAGTAAAGAATCGCCTGGACTATCATATATCTGTGCAGAACATGATGCGTCGAAAAG  
GAACAAGAACACATGATAAATGGGTGGAGAAGCACGTGGTGGCAAAGCATCTCCACACAGCAGGAAAAGG  
AGACAATTGCCAAGTGCATTGCGGACCTAAAGCTGCTGGCAAAGAAGGCTCAAGCACAGCCAGTTATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC205088 protein sequence  
Red=Cloning site Green=Tags(s)

MLSRVVL SAAATAAPSLKNA AFLGPGVLQATRTFHTGQPHLVPVPPLPEYGGKVRYGLIPEEFFQFLYPK  
 TGVTGPYVLGTGLILYALSKEIYVISAETFTALSVLGVMVYGIKKYGPVADFADKLNEQKLAQLEEAKQ  
 ASIQHIQNAIDTEKSQQALVQKRHYLFDVQRNNIAMALEVYRERLYRVYKEVKNRLDYHISVQNMMRRK  
 EQEHMINWVEKHVVQSI STQKEKETIAKCIADLKLLAKKAQAQPM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6062\\_b05.zip](https://cdn.origene.com/chromatograms/mk6062_b05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001688

**ORF Size:** 768 bp

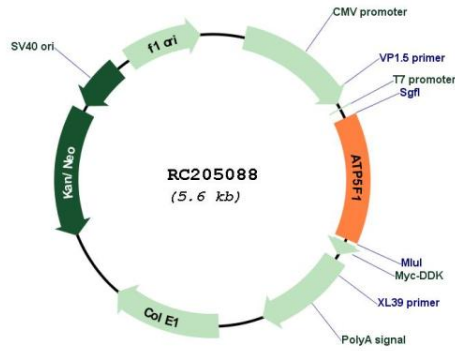
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone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

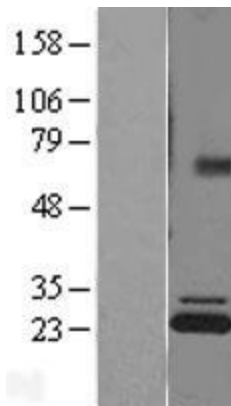
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001688.5</a>
<b>RefSeq Size:</b>	2116 bp
<b>RefSeq ORF:</b>	771 bp
<b>Locus ID:</b>	515
<b>UniProt ID:</b>	<a href="#">P24539</a>
<b>Cytogenetics:</b>	1p13.2
<b>Protein Pathways:</b>	Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
<b>MW:</b>	28.9 kDa
<b>Gene Summary:</b>	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 seems to have nine subunits (a, b, c, d, e, f, g, F6 and 8). This gene encodes the b subunit of the proton channel. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC205088



Western blot validation of overexpression lysate (Cat# [LY400645]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205088 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).