

## Product datasheet for SC117080

### ATP5MF (NM\_004889) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ATP5MF (NM_004889) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATP5MF
Synonyms:	ATP5J2; ATP5JL
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF sequence for NM_004889 edited ATGGCGTCAGTTGGTGAGTGTCCGGCCCCAGTACCAGTGAAGGACAAGAACTTCTGGAG GTCAAAGTGGGGAGCTGCCAAGCTGGATCTTGATGCGGGACTTCAGTCCAGTGGCATT TTCGGAGCGTTTCAAAGAGGTTACTACCGTACTACAACAAGTACATCAATGTGAAGAAG GGGAGCATCTCGGGATTACCATGGTGCTGGCATGCTACGTGCTTTAGTACTCCTTT TCCTACAAGCATCTCAAGCACGAGCGGCTCCGCAATACCACTGA
5' Read Nucleotide Sequence:	>OriGene 5' read for NM_004889 unedited CCGCGAATTCGGCAGCAGCCAAAATGGCGTCAGTTGGTGAGTGTCCGGCCCCAGTGCCAG TGAAGGACAAGAACTTCTGGAGGTCAAAGTGGGGAGCTGCCAAGCTGGATCTTGATGC GGGACTTCAGTCCAGTGGCATTTCGGAGCGTTTCAAAGAGGTTACTACCGTACTACA ACAAGTACATCAATGTGAAGAAGGGGAGCGATCTCGGGATTACCATGGTGCTGGCATGC TACGTGCTCTTTAGTACTCCTTTTCTACAAGCATCTCAAGCACGAGCGGCTCCGCAA TACCACTGAAGAGGACACACTCTGCACCCCCACCCACGACCTTGGCCGAGCCCTC CGTGAGGAACACAATCTCAATCGTTGCTGAATCCTTTTATATCCTAATAGGAATTAACCT CCAAATAAACATGACTGGTACGTGTAACAGATCCCCGGGTGGCATCCCTGTGACCCCTCCC AGTGCCTCTCCTGGCCCTGGAAGTTGCCACTCCAGTGCCACCAGCCTTGTCTAATAAA TTAAGTTGCATCATTTTGTCTGACTAGGTGCCTTCTATAATATTATGGCGCTGGCGGG GGTGGTATGGAGCAAGGGCAAGTTGGGAACACAACCTGTANGGCTGCGGGGTCTATGG GGAACCAACTGGAGTGACAG



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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_004889 unedited AACATTGAATTTAGCTTGCACCCGCGGCCGCATCCTACGATCGGCTTTTTTTTTTTTTTTT TTTACACGTACCAGTCATGTTTTATTTGGAGGTTAATTCCTATTAGGATATGAAAGGATT CAGCAACGATTGAGATTGTTCCTCACGGAGGGGCTCGGGCCACGGTCGTGGGGTGGGG GGGTGCAGAGTGTGCTCTTCAGTGGTATTTGCGGAGCCGCTCGTGCTTGAGATGCTTG TAGGAAAAGGAGTAGCTAAAGAGCACGTAGCATGCCAGCACCATGGTAATCCCCGAGATG CTCCCCCTTCCACATTGATGTACTTGTGTAGTACCGGTAGTAACCTCTTTGAAACGCT CCGAAAAATGCCACTAGGACTGAAGTCCCGCATCAAGATCCAGCTTGGCAGCTCCCCCAGT TTGACCTCCAGAAGTTTCTGTCTTCACTGGTACTGGGGCCGGACACTACCAACTGAC GCCATTTTGGCTCGTGCCGAATTCGCGCCGCCCTATACTGAGCCGCATTACCAACTTCT GACGGTCTCACTACACCAGCTTTGCTTCATCAGACCTCCACCGTACACCCTACCGGCC ATTTTCGTTAACCCTCATCGCTAACCCACCTTTCCCCCTCCCTCTCCCCCCCCCT TCTAACCCACCCCTTCCCCCTCCCGCCCTTGCCAATCCGTAATCCCCCTCCCCCTTC CCCTATTTCCCCATCTCCCCCTTCCCCCTACCCGCACCCCCCCCCACAGACGCACC TCGCTCATATCTATATCGCGCTCCCAACCTCCACCCTCGCATCTCCCCTTTTCTCTCT CCTCTCTCTCTCCCCCTCCCCCTCCCCCCCCCTC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_004889
<b>Insert Size:</b>	450 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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>RefSeq:</b>	<u><a href="#">NM_004889.2</a></u> , <u><a href="#">NP_004880.1</a></u>
<b>RefSeq Size:</b>	512 bp
<b>RefSeq ORF:</b>	285 bp
<b>Locus ID:</b>	9551
<b>UniProt ID:</b>	<u><a href="#">P56134</a></u>
<b>Cytogenetics:</b>	7q22.1
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, Oxidative phosphorylation

**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, F<sub>1</sub>, and the membrane-spanning component, F<sub>o</sub>, 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 F<sub>o</sub> 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]

Transcript Variant: This variant (1) represents the longest transcript, and it encodes the longest isoform (2a).