

Product datasheet for **SC116891**

ATP5MC2 (NM_005176) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP5MC2 (NM_005176) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATP5MC2
Synonyms:	ATP5A; ATP5G2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_005176, the custom clone sequence may differ by one or more nucleotides

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ATGCCTGAGCTGATCCTGTATGTTGCAATCACTCTATCCGTGGCTGAGCGACTCGTTGGCCCGGGTCACG
CATGCGCTGAGCCTTCCTTTTCGCTCTTCCCGCTGCTCCGCCCTCTCTGTCTTCTCTGCAGTGGGAGCAG
CTCTCCTGCCACAGCTCCTCACCCCTGAAAATGTTGCGCTGCTCCAAGTTTGTCTCCACTCCCTCCTTG
GTCAAGAGCACCTCACAGCTGCTGAGCCGTCGCTATCTGCAGTGGTGTGAAACGACCGGAGATACTGA
CAGATGAGAGCCTCAGCAGCTTGGCAGTCTCATGTCCCCTTACCTCACTTGTCTTAGCCGAGCTTCCA
AACCAGCGCCATTTCAAGGGACATCGACACAGCAGCCAAGTTCATTGGAGCTGGGGCTGCCACAGTTGGG
GTGGCTGGTTCTGGGGCTGGGATTGGAAGTGTGTTTGGGAGCCTCATCATTGGTTATGCCAGGAACCTT
CTCTGAAGCAACAGCTCTTCTCCTACGCCATTCTGGGCTTGGCCCTCTCGGAGGCCATGGGGCTCTTTTG
TCTGATGGTAGCCTTTCTCATCCTCTTTGCCATGTGA
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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_005176 unedited TATAGGCGGCCGCGACATCGGCACGAGGGCCACAGCTCCTCACCCCTGAAATGTTTCGCC TGCTCCAAGTTTGTCTCCACTCCCTCCTTGGTCAAGAGCACCTCACAGCTGCTGAGCCGT CCGCTATCTGCAGTGGTGTGAAACGACCGGAGATACTGACAGATGAGAGCCTCAGCAGC TTGGCAGTCTCATGTCCCTTACCTCACTTGTCTCTAGCCGAGCTTCAAACCAGCGCC ATTTCAAGGGACATCGACACAGCAGCCAAGTTCATTGGAGCTGGGGCTGCCACAGTTGGG GTGGCTGGTTCTGGGGCTGGGATTGGAAGTGTGTTGGGAGCCTCATCATTGGTTATGCC AGGAACCCTTCTCTGAAGCAACAGCTCTTCTCCTACGCCATTCTGGGCTTGGCCCTCTCG GAGGCCATGGGGCTCTTTTGTCTGATGGTAGCCTTCTCATCCTTTTGCCATGTGAAGG AGCCGTCTCCACCTCCCATAGTTCTCCCGCTCTGGTTGGCCCGTGTGTTCTTTTCT ATACCTCCCAGGCAGCCTGGGGAACGTGGTTGGCTCAGGGTTTGACAGAGAAAAGACAA ATAAATACTGTATTAATAAGAAAAAAAAAAAAAAAAAAAAAAAAACTCGACTTAGATTGCGG CCGCGGTATAGCTGTTTCTGAACAGATCCCCGGTGGCATCCCTGTGACCCCTCCCCAG TGCTCTCCTGGCCCTGGAAGTCCACTCCAGTGCCAC</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_005176 unedited GGCACGCAATCTAGAAGTCGAAGTTTTTCTTTTTCTTTTTCTTTTTCTTTTATAAATA CAGTATTTATTTGTCTTTTCTGTCAAACCTGAGCCAACCACGTTCCCCAGGCTGCCT GGGGAGGTATAGGAAAAGGAACACACGGGGCAACCAGACGCGGGAGAATATGGGAGGT GGAGACGGCTCCTTACATGGCAAAGAGGATGAGAAAGGCTACCATCAGACAAAAGAGCC CCATGGCCTCCGAGAGGGCAAAGCCAGAATGGCGTAGGAAAAAGCTGTTGCTTCAAAG AAGGGTCTGGCATAACCAATGATGAGGCTCCCAAACACAGTTCCAATCCAGCCCCAG AACCAGCCACCCCAACTGTGGCAGCCCCAGCTCCAATGAACTTGGCTGCTGTGTCGATGT CCTTGAAATGGCGCTGTTTGAAGCTGCGGCTAGAGACAAGTGAAGTAAAGGGACATG AGACTGCCAAGCTGCTGAGGCTCTCATCTGTCAGTATCTCCGGTCCGTTGAGCACCCT GCAGATAGCGGACGGCTCACCAGCTGTGAGGTGCTTTGACCAAGGAGGGAGTGGAGACA AACTTGGAGCAAGCGAACATTTTCAAGGGGAGAGGAGCTGGGGCCCTCGTGCCCAAATTC CGGGCCGCCCTTATAAAGAAGCGTATTACAAAATCTGACGGGTCAACTAAACGACCTCT TGTTTTATTTAAACCCCCCCCCGTACACCCTACCGCCATTTGCGTTAACGGGGCCGGG TTTTTCACGACATTTTGGAAAGCCCCGTTGATTTTGGGCCAAACCACACCCCTTGGAC CTCACGGGGCGGAAACCTGGAATCCCCGGGAGAAAACCGTTTTTCCCCGCCCTGGGGGTC TGCCAAAACCTTTACCTGGGAATAGCCAGCACAACCCCAAAGCCCTGCCACAGAAAACCC CTCAGGCTTTTTCGGCCTAACCAACCCGGCCTTCT</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_005176
Insert Size:	650 bp
OTI Disclaimer:	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).
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_005176.4](#), [NP_005167.1](#)

RefSeq Size: 898 bp

RefSeq ORF: 426 bp

Locus ID: 517

UniProt ID: [Q06055](#)

Cytogenetics: 12q13.13

Domains: ATP-synt_C

Protein Families: Transmembrane

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

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 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). There are three separate genes which encode subunit c of the proton channel and they specify precursors with different import sequences but identical mature proteins. The protein encoded by this gene is one of three precursors of subunit c. This gene has multiple pseudogenes. [provided by RefSeq, Jan 2018]

Transcript Variant: This variant (2) differs in the 5' UTR, lacks a portion of the 5' coding region and uses a downstream start codon compared to variant 1. Variants 2 and 3 encode the same isoform (c).