

Product datasheet for **SC300396**

ATP5MC1 (NM_001002027) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP5MC1 (NM_001002027) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATP5MC1
Synonyms:	ATP5A; ATP5G; ATP5G1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC300396 representing NM_001002027. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCAGACCGCCGGGGCATTATTCATTTCTCCAGCTCTGATCCGCTGTTGTACCAGGGGTCTAATCAGG
CCTGTGTCTGCCTCCTTCTTGAATAGCCCAGTGAATTCATCTAACAGCCTTCTACAGCAACTCCCA
CTCCAGGTGGCCAGACGGGAGTTCAGACCAGTGTGTCTCCGGGACATTGACACAGCAGCCAAGTTT
ATTGGTGTGGGGCAGCCACAGTTGGTGTGGCTGGTTCAGGGGCTGGCATTGGAACCGTGTGGCAGC
TTGATCATTGGCTATGCCAGGAACCCGTCTCTCAAGCAGCAGCTTCTCCTATGCCATTCTGGCTTT
GCCCTGTCTGAGGCCATGGGGCTTTTCTGTTTGTGGTGCCTTCTCATCCTCTCGCCATGTGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: Sgfl-Mlul



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Plasmid Map:


ACCN: NM_001002027

Insert Size: 411 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001002027.1](#)

RefSeq Size: 593 bp

RefSeq ORF: 411 bp

Locus ID: 516

UniProt ID: [P05496](#)

Cytogenetics: 17q21.32

Protein Families: Transmembrane

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

MW: 14.3 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, 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 is one of three genes that encode subunit c of the proton channel. Each of the three genes have distinct mitochondrial import sequences but encode the identical mature protein. Alternatively spliced transcript variants encoding the same protein have been identified. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) differs in the 5' UTR, compared to variant 1. Variants 1 and 2 encode the same protein.