

Product datasheet for **SC300398**

ATP5MC2 (NM_001002031) Human Untagged Clone

Product data:

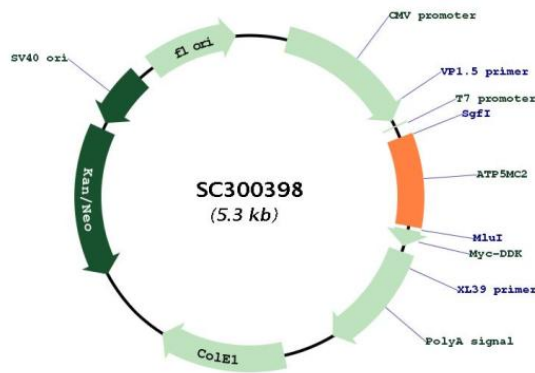
Product Type:	Expression Plasmids
Product Name:	ATP5MC2 (NM_001002031) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATP5MC2
Synonyms:	ATP5A; ATP5G2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC300398 representing NM_001002031. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGCCTGAGCTGATCCTCTCCTGCCACAGCTCCTCACCCCTGAAAATGTTGCCTGCTCCAAGTTT
GTCTCCACTCCCTCCTTGGTCAAGAGCACCTCACAGCTGCTGAGCCGTCGCTATCTGCAGTGGTCTG
AAACGACCGGAGATACTGACAGATGAGAGCCTCAGCAGCTTGGCAGTCTCATGTCCCTTACCTCACTT
GTCTCTAGCCGCAGCTTCAAACCAGCGCCATTTCAAGGGACATCGACACAGCAGCCAAGTTCATTGGA
GCTGGGGCTGCCACAGTTGGGGTGGCTGGTTCTGGGGCTGGGATTGGAAGTGTGTTGGGAGCCTCATC
ATTGGTTATGCCAGGAACCTTCTCTGAAGCAACAGCTTCTCCTACGCCATTCTGGGCTTGGCCATGTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: Sgfl-Mlul



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Plasmid Map:


ACCN:	NM_001002031
Insert Size:	474 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_001002031.2](#)

RefSeq Size: 1178 bp

RefSeq ORF: 474 bp

Locus ID: 517

UniProt ID: [Q06055](#)

Cytogenetics: 12q13.13

Protein Families: Transmembrane

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

MW: 16.3 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 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 (1) represents the longer transcript, but encodes the shorter isoform (a).