

Product datasheet for SC310856

OriGene Technologies, Inc.

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ATP5MF (NM_001039178) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: ATP5MF (NM 001039178) Human Untagged Clone

Tag: Tag Free Symbol: ATP5MF

Synonyms: ATP5J2; ATP5JL Vector: pCMV6 series

Fully Sequenced ORF: >NCBI ORF sequence for NM_001039178, the custom clone sequence may differ by one or

more nucleotides

 $ATGGCGTCAGTTGTACCAGTGAAGGACAAGAAACTTCTGGAGGTCAAACTGGGGGAGCTG\\CCAAGCTGGATCTTGATGCGGGACTTCAGTCCTAGTGGCATTTTCGGAGCGTTTCAAAGA\\$

GAGCACGAGCGGCTCCGCAAATACCACTGA

Restriction Sites: Please inquire **ACCN:** NM 001039178

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: <u>NM 001039178.1</u>, <u>NP 001034267.1</u>





ATP5MF (NM_001039178) Human Untagged Clone - SC310856

RefSeq Size: 377 bp

 RefSeq ORF:
 150 bp

 Locus ID:
 9551

 UniProt ID:
 P56134

 Cytogenetics:
 7q22.1

Protein Families: Transmembrane

Protein Pathways: 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, F1, and the membrane-spanning component, Fo, 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 Fo 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 (4) uses an alternate in-frame splice site in the 5' coding region, and lacks an alternate in-frame exon in the 3' coding region, compared to variant 1. It encodes a shorter isoform (2d) that is missing multiple internal segments when compared to

isoform 2a.