ATP5F1 cDNA Clone – ATP Synthase, H+ Transporting, Mitochondrial F0 Complex, Subunit B1 (Human)

PRODUCT OVERVIEW

Product Name	ATP5F1, cDNA Clone
Full Product Name	ATP5F1 cDNA Clone
Product Gene Name	ATP5F1 cdna clone
Sequence	atgctgtccc gggtggtact ttccgccgcc gccacagcgg ccccctctct gaagaatgca gccttcctag gtccaggggt attgcaggca acaaggacct ttcatacagg gcagccacac cttgtccctg taccacctct tcctgaatac ggaggaaaag ttcgttatgg actgatccct gaggaattct tccagtttct ttatcctaaa actggtgtaa caggacccta tgtactcgga actgggctta tcttgtacgc tttatccaaa ggaatatatg tgattagcgc agagaccttc actgccctat cagtactagg tgtaatggtc tatggaatta aaaaatatgg tccctttgtt gcagactttg ctgataaact caatgagcaa aaacttgccc aactagaaga ggcgaagcag gcttccatcc aacacatcca gaatgcaatt gatacggaga agtcacaaca ggcactggtt cagaagcgcc attacctttt tgatgtgcaa aggaataaca ttgctatggc tttggaagtt acttaccggg aacgactgta tagagtatat aaggaagtaa ggaatcgcct ggactatcat atatctgtgc agaacatgat gcgtcgaaag gaacaagaac acatgataaa ttgggtggag aagcacgtgg tgcaaagcat ctccacacag caggaaaagg agacaattgc caagtgcatt gcggacctaa agctgctggc aaagaaggct caagcacagc cagttatgta a
Molecular Weight	28,909 Da
OMIM	603270
Vector	pENTR223.1 or pUC
Clone Sequence Report	Provided with product shipment
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for ATP5F1 cdna clone	MBS1271072 is a cDNA clone targeting ATP5F1.
Other Notes	Small volumes of ATP5F1 cdna clone vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATP5F1. It may not necessarily be applicable to this product.

NCBI GI #	13543617
NCBI GeneID	515
NCBI Accession #	BC005960
UniProt Secondary Accession #	Q9BQ68; Q9BRU8
UniProt Related Accession #	P24539
NCBI Official Full Name	Homo sapiens ATP synthase, H+ transporting, mitochondrial F0 complex, subunit B1, mRNA
NCBI Official Synonym Full Names	ATP synthase, H+ transporting, mitochondrial Fo complex subunit B1
NCBI Official Symbol	ATP5F1
NCBI Official Synonym Symbols	PIG47
UniProt Protein Name	ATP synthase F(0) complex subunit B1, mitochondrial
UniProt Synonym Protein Names	ATP synthase proton-transporting mitochondrial F(0) complex subunit B1; ATP synthase subunit b; ATPase subunit b

Protein Family	ATP synthase F(0) complex
UniProt Gene Name	ATP5F1
UniProt Synonym Gene Names	ATPase subunit b
UniProt Entry Name	AT5F1_HUMAN
NCBI Protein Information	ATP synthase F(0) complex subunit B1, mitochondrial
NCBI Summary for ATP5F1	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 encodes the b subunit of the proton channel. [provided by RefSeq, Jul 2008]
UniProt Comments for ATP5F1	ATP5F1: Mitochondrial membrane ATP synthase (F(1)F(0) ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F(1) - containing the extramembraneous catalytic core, and F(0) - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Part of the complex F(0) domain and the peripheric stalk, which acts as a stator to hold the catalytic alpha(3)beta(3) subcomplex and subunit a/ATP6 static relative to the rotary elements. Belongs to the eukaryotic ATPase B chain family. Protein type: Mitochondrial; EC 3.6.3.14; Energy Metabolism - oxidative phosphorylation; Hydrolase Chromosomal Location of Human Ortholog: 1p13.2 Cellular Component: membrane; mitochondrial inner membrane; mitochondrial proton-transporting ATP synthase complex; mitochondrion; nucleoplasm; nucleus Molecular Function: ATPase activity; hydrogen ion transporting ATP synthase activity, rotational mechanism; protein binding; transmembrane transporter activity Biological Process: ATP biosynthetic process; ATP synthesis coupled proton transport; mitochondrial ATP synthesis coupled proton transport; substantia nigra development
Research Articles on ATP5F1	**1.** Down-regulation of mitochondrial ATPase by hypermethylation mechanism in chronic myeloid leukemia is associated with multidrug resistance.
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