

Recombinant Human ATP synthase, H⁺ transporting, mitochondrial Fo complex, subunit B1, His-tagged

Cat. No. ATP5F1-419H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	ATP5F1, 83-256aa, Human, His tag, E.coli
Species	Human
Source	E.coli
ProteinLength	83-256 a.a.
Description	ATP5F1 is 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). Recombinant human ATP5F1 protein, fused to His-tag at N-terminus, was expressed in E.coli.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.4M Urea, 10% glycerol
Molecular Mass	22.6 kDa (197aa)
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSLILYALS KEIYVISAET FTALSVLGVM

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VYGIKKYGPV VADFADKLNE QKLAQLEEAQ QASIQHIQNA IDTEKSQQAL
VQKRHYLFDV QRNNIAMALE VTYRERLYRV YKEVKNRLDY HISVQNMMRR
KEQEHMINWV EKHVVQSIST QQEKETIAKC IADLKLLAKK AQAQPM

Purity >80% by SDS - PAGE

Storage Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [ATP5F1 ATP synthase, H⁺ transporting, mitochondrial Fo complex, subunit B1 \[Homo sapiens \]](#)

Official Symbol ATP5F1

Synonyms ATP5F1; ATP synthase, H⁺ transporting, mitochondrial Fo complex, subunit B1; ATP synthase, H⁺ transporting, mitochondrial F0 complex, subunit b, isoform 1 , ATP synthase, H⁺ transporting, mitochondrial F0 complex, subunit B1; ATP synthase subunit b, mitochondrial; ATPase subunit b; H⁺-ATP synthase subunit b; ATP synthase B chain, mitochondrial; cell proliferation-inducing protein 47; ATP synthase, H⁺ transporting, mitochondrial F0 complex, subunit B1; ATP synthase, H⁺ transporting, mitochondrial F0 complex, subunit b, isoform 1; PIG47; MGC24431;

Gene ID [515](#)

mRNA Refseq [NM_001688](#)

Protein Refseq [NP_001679](#)

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MIM	603270
UniProt ID	P24539
Chromosome Location	1p13.2
Pathway	Alzheimers disease, organism-specific biosystem; Alzheimers disease, conserved biosystem; Electron Transport Chain, organism-specific biosystem; F-type ATPase, eukaryotes, organism-specific biosystem; Formation of ATP by chemiosmotic coupling, organism-specific biosystem; Huntingtons disease, organism-specific biosystem; Huntingtons disease, conserved biosystem;
Function	contributes_to ATPase activity; hydrogen ion transmembrane transporter activity; hydrogen ion transporting ATP synthase activity, rotational mechanism; protein binding; transmembrane transporter activity;

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