

## Recombinant Human ATP synthase, H<sup>+</sup> transporting, mitochondrial Fo complex, subunit B1, His-tagged

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

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | ATP5F1, 83-256aa, Human, His tag, E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>ProteinLength</b>    | 83-256 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>      | 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. |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.4M Urea, 10% glycerol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Molecular Mass</b>   | 22.6 kDa (197aa)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>AA Sequence</b>      | MGSSHHHHHH SSGLVPRGSH MGSLILYALS KEIYVISAET FTALSVLGVM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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<sup>+</sup> transporting, mitochondrial Fo complex, subunit B1 \[ Homo sapiens \]](#)

**Official Symbol** ATP5F1

**Synonyms** ATP5F1; ATP synthase, H<sup>+</sup> transporting, mitochondrial Fo complex, subunit B1; ATP synthase, H<sup>+</sup> transporting, mitochondrial F0 complex, subunit b, isoform 1 , ATP synthase, H<sup>+</sup> transporting, mitochondrial F0 complex, subunit B1; ATP synthase subunit b, mitochondrial; ATPase subunit b; H<sup>+</sup>-ATP synthase subunit b; ATP synthase B chain, mitochondrial; cell proliferation-inducing protein 47; ATP synthase, H<sup>+</sup> transporting, mitochondrial F0 complex, subunit B1; ATP synthase, H<sup>+</sup> 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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|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MIM</b>                 | 603270                                                                                                                                                                                                                                                                                                                                                                       |
| <b>UniProt ID</b>          | P24539                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Chromosome Location</b> | 1p13.2                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Pathway</b>             | 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; |
| <b>Function</b>            | 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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