# **PRODUCT INFORMATION**

Expression system E.coli

**Domain** 83-256aa

**UniProt No.** P24539

NCBI Accession No. NP\_001679

Alternative Names ATP synthase subunit b, PIG47

# **PRODUCT SPECIFICATION**

Molecular Weight 22.6 kDa (197aa)

**Concentration** 0.5mg/ml (determined by Bradford assay)

#### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol

Purity

> 80% by SDS-PAGE

Tag His-Tag

Application SDS-PAGE,Denatured

### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

### BACKGROUND

#### 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 membranespanning 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.

#### **Amino acid Sequence**

MGSSHHHHHH SSGLVPRGSH MGSLILYALS KEIYVISAET FTALSVLGVM VYGIKKYGPF VADFADKLNE QKLAQLEEAK QASIQHIQNA IDTEKSQQAL VQKRHYLFDV QRNNIAMALE VTYRERLYRV YKEVKNRLDY HISVQNMMRR KEQEHMINWV EKHVVQSIST QQEKETIAKC IADLKLLAKK AQAQPVM

### **General References**

Higuti T., et al. (1991) Biochem. Biophys. Res. Commun. 178:1014-1020 Choudhary C., et al. (2009) Science. 325:834-840

## DATA



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.