

# Recombinant human ATP5D protein

Catalog Number: ATGP1099

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

23-168aa

### UniProt No.

P30049

### NCBI Accession No.

NP\_001678

### Alternative Names

ATP synthase subunit delta mitochondrial, ATP synthase subunit delta, mitochondrial, F-ATPase delta subunit

## PRODUCT SPECIFICATION

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### Molecular Weight

17.3 kDa (167aa) confirmed by MALDI-TOF

### Concentration

0.25mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 0.1M NaCl

### Purity

> 95% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### 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

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### Description

ATP5D, also known as F-ATPase delta subunit, 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 consists of three main subunits (a, b, c). This protein is the delta subunit of

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the catalytic core. Alternatively spliced transcript variants encoding the same isoform have been identified. Recombinant human ATP5D protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography.

### Amino acid Sequence

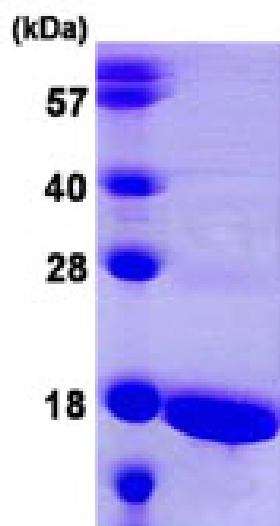
MGSSHHHHHHH SSGLVPRGSH MAEAAAAPAA ASGPNQMSFT FASPTQVFFN GANVRQVDVP TLTGAFGILA HVPTLQVLR  
PGLVVVHAED GTTSKYFVSS GSIAVNADSS VQLLAEEAVT LDMLDLGAAK ANLEKAQAEI VGTADEATRA EIQRIEANE  
ALVKALE

### General References

Jordan E.M., et al. (1992) *Biochim. Biophys. Acta* 1130:123-126  
Grimwood J., et al. (2004) *Nature*. 428:529-535

## DATA

### SDS-PAGE



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

15% SDS-PAGE (3ug)