PRODUCT INFORMATION

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

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

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



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

MGSSHHHHHH SSGLVPRGSH MAEAAAAPAA ASGPNQMSFT FASPTQVFFN GANVRQVDVP TLTGAFGILA HVPTLQVLR PGLVVVHAED GTTSKYFVSS GSIAVNADSS VQLLAEEAVT LDMLDLGAAK ANLEKAQAEL VGTADEATRA EIQIRIEANE 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)