ATP5D Protein, Human (His)

Cat. No.:	HY-P72098
Synonyms:	ATP synthase subunit delta; mitochondrial ; ATP synthase subunit delta; mitochondrial; ATP synthase; H+ transporting; mitochondrial F1 complex; delta subunit; ATP5D; ATPD_HUMAN; F ATPase delta subunit ; F-ATPase delta subunit; Mitochondrial ATP synthase complex delta subunit precusor ; Mitochondrial ATP synthase delta subunit
Species:	Human
Source:	E. coli
Accession:	P30049 (A23-E168)
Gene ID:	513
Molecular Weight:	Approximately 20 kDa

PROPERTIES

AA Sequence	A E A A A A P A A A S G P N Q M S F T F A S P T Q V F F N G A N V R Q V D V P T L T G A F G I L A A H V P T L Q V L R P G L V V V H A E D G T T S K Y F V S S G S I A V N A D S S V Q L L A E E A V T L D M L D L G A A K A N L E K A Q A E L V G T A D E A T R A E I Q I R I E A N E A L V K A L E
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm solution of Tris-based buffer, 50% Glycerol or 50 mM Tris-HCL, 300 mM NaCL, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The ATP5D protein functions as a crucial component of the mitochondrial membrane ATP synthase, also known as Complex V. This enzyme is responsible for generating ATP from ADP by utilizing the proton gradient across the mitochondrial membrane, a gradient established by the electron transport complexes of the respiratory chain. The F-type ATPases, to which ATP5D belongs, consist of two main structural domains: F(1), housing the catalytic core, and F(0), housing the membrane proton channel. During catalysis, ATP turnover in the F(1) catalytic domain is linked to proton translocation through a rotary mechanism involving the central stalk subunits. ATP5D is part of both the F(1) domain and the central stalk,

	contributing to the rotation that leads to ATP hydrolysis. The ATP synthase complex, in which ATP5D participates, includes various subunits and plays a pivotal role in cellular energy production through ATP synthesis.

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