

ATP5MG Protein, Bovine (Myc, His)

Cat. No.:	HY-P71550
Synonyms:	ATP5MG; ATP5L ATP synthase subunit g; mitochondrial; ATPase subunit g; ATP synthase membrane subunit g
Species:	Bovine
Source:	E. coli
Accession:	Q28852 (2A-103V)
Gene ID:	515696
Molecular Weight:	Approximately 18.7 kDa

PROPERTIES

AA Sequence	<p>A E F V R N L A E K A P A L V N A A V T Y S K P R L A T F W Y Y A K V E L V P P</p> <p>T P A E I P T A I Q S L K K I I N S A K T G S F K Q L T V K E A L L N G L V A T</p> <p>E V W M W F Y V G E I I G K R G I I G Y D V</p>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O.
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	<p>The ATP5MG protein is an integral component of the mitochondrial membrane ATP synthase, also known as Complex V, responsible for generating ATP from ADP in the presence of a proton gradient produced by the respiratory chain's electron transport complexes. F-type ATPases comprise two primary structural domains: F(1), housing the extramembraneous catalytic core, and F(0), encompassing the membrane proton channel. These domains are interconnected by a central stalk and a peripheral stalk. During the catalytic process, ATP synthesis in the F(1) domain is coordinated with proton translocation through a rotary mechanism involving the central stalk subunits. ATP5MG specifically resides within the F(0) domain, acting as a minor subunit alongside subunit a in the membrane. The overall F-type ATPase complex consists of CF(1), the catalytic core, and CF(0), the membrane proton channel, with CF(0) comprising nine subunits: a, b, c, d, e, f, g, F6,</p>
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and 8 (or A6L). ATP5MG is a crucial component of the ATP synthase complex, working in collaboration with various subunits to facilitate ATP synthesis.

Caution: Product has not been fully validated for medical applications. For research use only.

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