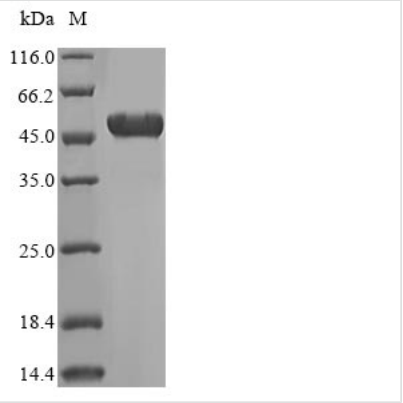
Recombinant Human ATP synthase subunit beta, mitochondrial (ATP5F1B), partial

Product Code	CSB-EP002350HU1
Relevance	Mitochondrial membrane ATP synthase (F1F0 ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F1 - containing the extramembraneous catalytic core, and F0 - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F1 is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Subunits alpha and beta form the catalytic core in F1. Rotation of the central stalk against the surrounding alpha3beta3 subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits.
Abbreviation	Recombinant Human ATP5F1B protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P06576
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	YSVFAGVGERTREGNDLYHEMIESGVINL kDaTSKVALVYGQMNEPPGARARVALTGLTVAEYFRDQEGQDVLLFIDNIFRFT QAGSEVSALLGRIPSAVGYQPTLATDMGTMQERITTTKKGSITSVQAIYVPADD LTDPAPATTFAHLDATTVLSRAIAELGIYPAVDPLDSTSRIMDPNIVGSEHYDVA RGVQKILQDYKSLQDIIAILGMDELSEEDKLTVSRARKIQRFLSQPFQVAEVFTG HMGKLVPLKETIKGFQQILAGEYDHLPEQAFYMVGPIEEAVAKADKLAEEHSS
Research Area	Tags & Cell Markers
Source	E.coli
Target Names	ATP5F1B
Protein Names	ATPMB, ATPSB
Expression Region	230-529aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	52.8 kDa

Protein Length	Partial

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Just like other recombinant proteins, the production of this recombinant Human ATP5F1B protein began with appropriate cDNA and PCR methods, and then the ATP5F1B expression plasmids were built. Following sequence determination of the constructs, plasmids were transformed into E.coli for the expression of the recombinant Human ATP5F1B protein. N-terminal 10xHis-SUMO tag & C-terminal Myc tag was used in the process. And we finally get the protein of interest with purity of 85%+.

ATP5F1B (also called ATP5B, ATPMB, ATPSB) is a gene that encodes a subunit of mitochondrial ATP synthase named ATP synthase subunit beta, mitochondrial (also known as ATP synthase F1 subunit beta) in human. Mitochondrial ATP synthase (also known as complex V) consists of two functional domains, F1and Fo. F1 is situated in the mitochondrial matrix, and Fo is located in the inner mitochondrial membrane. This ATP synthase catalyzes the formation of the energy storage molecule adenosine triphosphate (ATP) with adenosine diphosphate (ADP) and inorganic phosphate (P?).

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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