

KD-Validated Anti-ATP5B Rabbit Monoclonal Antibody

Rabbit monoclonal antibody Catalog # AGI1323

Specification

KD-Validated Anti-ATP5B Rabbit Monoclonal Antibody - Product Information

Application WB, FC, ICC Primary Accession P06576

Reactivity Rat, Human, Mouse Clonality Monoclonal

Isotype Rabbit IgG
Calculated MW Predicted, 57 kDa , observed, 50 kDa KDa

Gene Name ATP5F1B

Aliases ATP5F1B; ATP Synthase F1 Subunit Beta;

ATP5B; ATPSB; ATP Synthase, H+

Transporting, Mitochondrial F1 Complex, Beta Polypeptide; ATP Synthase Subunit Beta. Mitochondrial: ATPMB: Mitochondrial

ATP Synthetase, Beta Subunit;

Mitochondrial ATP Synthase Beta Subunit; Epididymis Secretory Protein Li 271; EC 3.6.3.14; EC 7.1.2.2; HEL-S-271; EC 3.6.3;

HUMOP2

Immunogen A synthesized peptide derived from human

ATPB

KD-Validated Anti-ATP5B Rabbit Monoclonal Antibody - Additional Information

Gene ID 506

Other Names

ATP synthase F(1) complex subunit beta, mitochondrial, 7.1.2.2, ATP synthase F1 subunit beta {ECO:0000312|HGNC:HGNC:830}, ATP5F1B (<a

href="http://www.genenames.org/cgi-bin/gene symbol report?hgnc id=830"

target=" blank">HGNC:830)

KD-Validated Anti-ATP5B Rabbit Monoclonal Antibody - Protein Information

Name ATP5F1B (HGNC:830)

Function

Catalytic subunit beta, of the mitochondrial membrane ATP synthase complex (F(1)F(0) ATP synthase or Complex V) that 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 (Probable) (PubMed:37244256). ATP synthase complex consist of a soluble F(1) head domain the catalytic core - and a membrane F(1) domain - the membrane proton channel (PubMed:37244256). These two domains are linked by a central stalk rotating inside the F(1) region and a stationary peripheral



stalk (PubMed:37244256). During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation (Probable). In vivo, can only synthesize ATP although its ATP hydrolase activity can be activated artificially in vitro (By similarity). With the subunit alpha (ATP5F1A), forms the catalytic core in the F(1) domain (PubMed:37244256).

Cellular Location

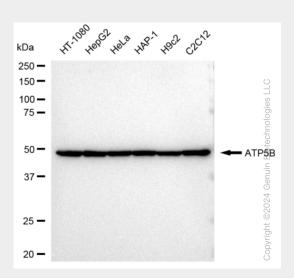
Mitochondrion inner membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:P00829}; Matrix side {ECO:0000250|UniProtKB:P00829, ECO:0000269|PubMed:25168243}

KD-Validated Anti-ATP5B Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

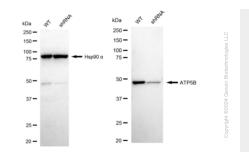
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

KD-Validated Anti-ATP5B Rabbit Monoclonal Antibody - Images

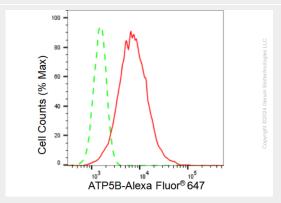


Western blotting analysis using anti-ATP5B antibody (Cat#AGI1323). Total cell lysates (30 μg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ATP5B antibody (Cat#AGI1323, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

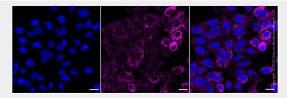




Western blotting analysis using anti-ATP5B antibody (Cat#AGI1323). ATP5B expression in wild type (WT) and ATP5B shRNA knockdown (KD) HeLa cells with 30 μ g of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-ATP5B antibody (Cat#AGI1323, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of ATP5B expression in HepG2 cells using ATP5B antibody (Cat#AGI1323, 1:2,000). Green, isotype control; red, ATP5B.



Immunocytochemical staining of HepG2 cells with anti-ATP5B antibody (Cat#AGI1323, 1:1000). Nuclei were stained blue with DAPI; ATP5B was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.