

Product Name: KD-Validated ATP5B Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA01412**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:50-1:100
Molecular Weight	Calculated MW: 56.6kDa

Antigen Information

Gene Name	ATP5F1B ATP5F1B; ATP Synthase F1 Subunit Beta; ATP5B; ATPSB; ATP Synthase, H+ Transporting, Mitochondrial F1 Complex, Beta Polypeptide; ATP Synthase Subunit Beta, Mitochondrial;
Alternative Names	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
Gene ID	506.0
SwissProt ID	P06576
Immunogen	A synthesized peptide derived from human ATPB

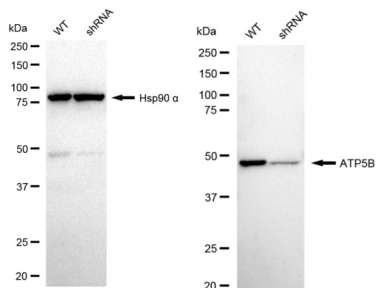
Background

This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase 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 gene encodes the beta subunit of the catalytic core. [provided by RefSeq, Jul 2008]

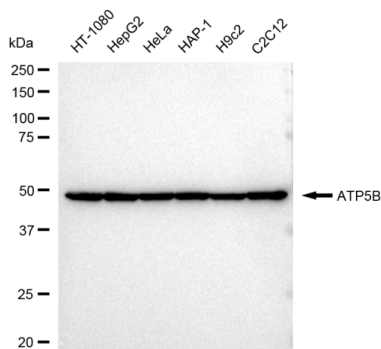
Research Area

Tags & Cell Markers

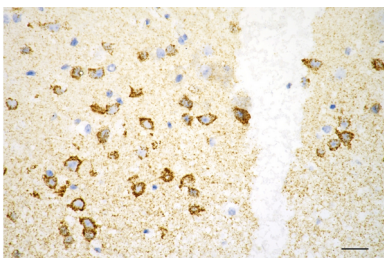
Image Data



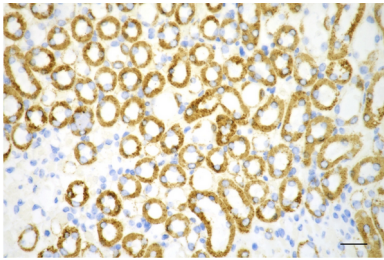
Western blotting analysis using ATP5B antibody (KVA01412). ATP5B expression in wild type (WT) and ATP5B shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with ATP5B antibody (KVA01412, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



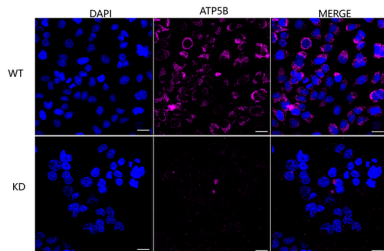
Western blotting analysis using ATP5B antibody (KVA01412). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with ATP5B antibody (KVA01412, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



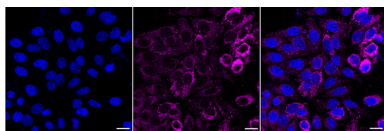
Immunohistochemistry was performed on paraffin-embedded mouse brain using ATP5B antibody (KVA01412, 1:100). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



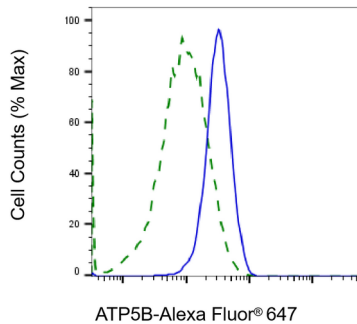
Immunohistochemistry was performed on paraffin-embedded mouse kidney using ATP5B antibody (KVA01412, 1:100). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 μm.



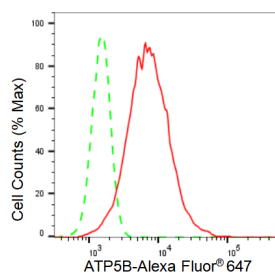
Immunocytochemical staining of HeLa cells using ATP5B antibody (KVA01412, 1:1,000), Top panel: wild-type (WT); Bottom panel: ATP5B shRNA knockdown (KD). Nuclei were stained blue with DAPI; ATP5B was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with ATP5B antibody (KVA01412, 1:1,000). 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.



Validation of ATP5B knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with ATP5B antibody (KVA01412, 1:2,000) and analyzed using CytoFLEX.



Flow cytometric analysis of ATP5B expression in HepG2 cells using ATP5B antibody (KVA01412, 1:2,000). Green, isotype control; red, ATP5B.