

## ATP5A1 Rabbit mAb

Catalog No: #49466



Package Size: #49466-1 50ul #49466-2 100ul

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

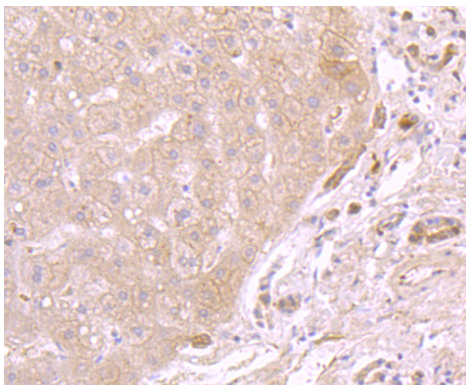
## Description

Product Name	ATP5A1 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	JM110-04
Purification	Affinity-chromatography
Applications	WB, ICC/IF, IHC, FC
Species Reactivity	Human;Mouse;Rat
Immunogen Description	A synthesized peptide derived from human ATP5A
Conjugates	Unconjugated
Other Names	ATP synthase alpha chain, mitochondrial antibody ATP synthase subunit alpha antibody ATP synthase subunit alpha mitochondrial antibody ATP synthase, H <sup>+</sup> transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle antibody ATP synthase, H <sup>+</sup> transporting, mitochondrial F1 complex, alpha subunit, 1 antibody ATP synthase, H <sup>+</sup> transporting, mitochondrial F1 complex, alpha subunit, isoform 1, cardiac muscle antibody ATP synthase, H <sup>+</sup> transporting, mitochondrial F1 complex, alpha subunit, isoform 2, non-cardiac muscle-like 2 antibody ATP synthase (F1 ATPase) alpha subunit antibody ATP5A antibody Atp5a1 antibody ATP5AL2 antibody ATPA_HUMAN antibody ATPM antibody Epididymis secretory sperm binding protein Li 123m antibody hATP1 antibody HEL-S-123m antibody MC5DN4 antibody mitochondrial antibody Mitochondrial ATP synthetase antibody Mitochondrial ATP synthetase oligomycin resistant antibody Modifier of Min 2 mouse homolog antibody Modifier of Min 2, mouse, homolog of antibody MOM2 antibody OMR antibody ORM antibody OTTHUMP00000163475 antibody
Accession No.	Swiss-Prot#:P25705
Calculated MW	50 kDa
Formulation	Rabbit IgG in 10mM phosphate buffered saline , pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
Storage	Store at +4°C for short term. Store at -20°C for long term. Avoid freeze/thaw cycle.

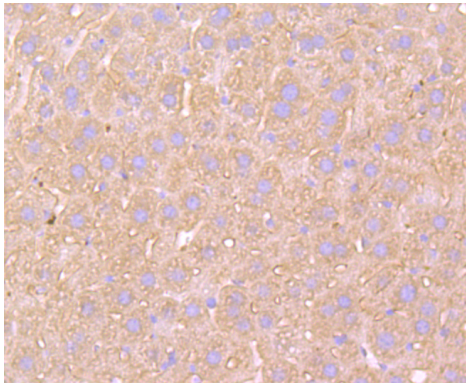
## Application Details

WB 1:1000-1:2000 IHC 1:100-1:200 ICC/IF 1:50-1:200 FC 1:20-1:100

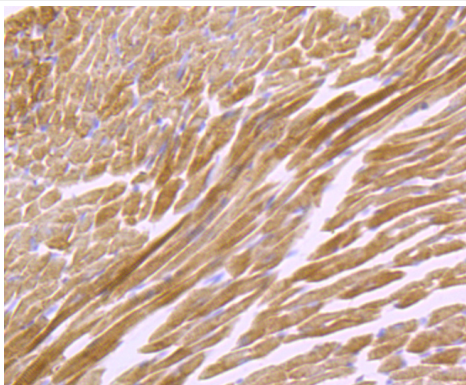
## Images



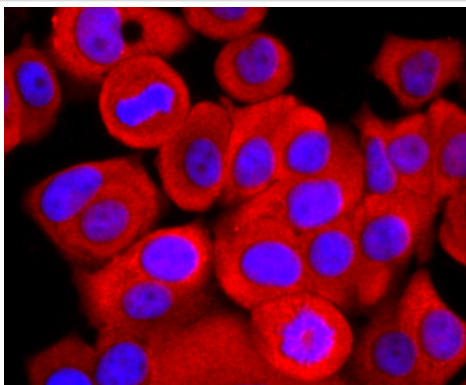
Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-ATP5A1 antibody. Counter stained with hematoxylin.



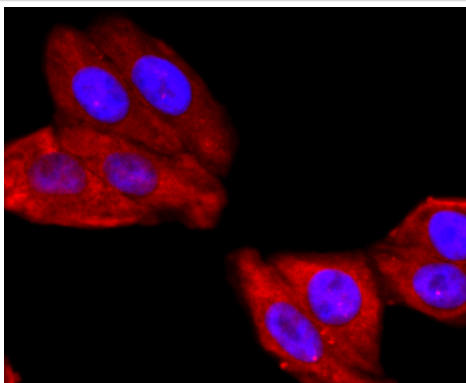
Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-ATP5A1 antibody. Counter stained with hematoxylin.



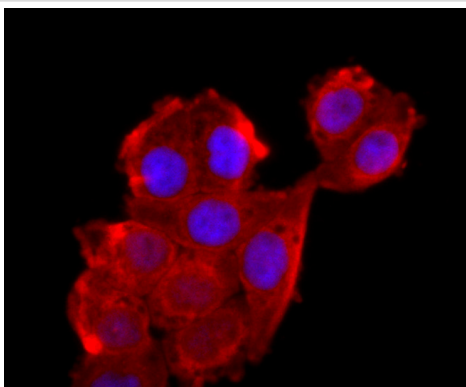
Immunohistochemical analysis of paraffin-embedded mouse heart muscle tissue using anti-ATP5A1 antibody. Counter stained with hematoxylin.



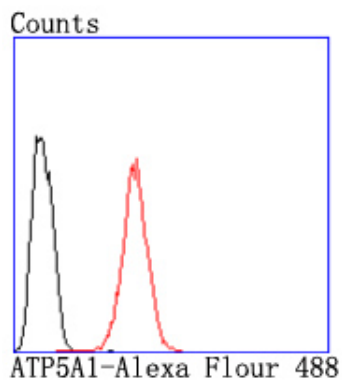
ICC staining ATP5A1 in MCF-7 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



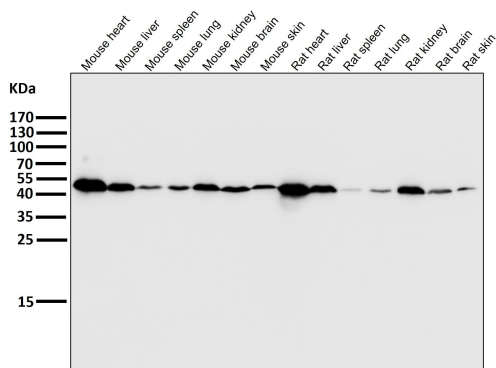
ICC staining ATP5A1 in HepG2 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



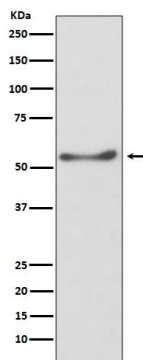
ICC staining ATP5A1 in HeLa cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of HeLa cells with ATP5A1 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.



All lanes use the Antibody at 1:2K dilution for 1 hour at room temperature.



Western blot analysis of ATP5A1 expression in HepG2 cell lysate.

## Background

Mitochondrial ATP synthases (ATPases) transduce the energy contained in membrane electrochemical proton gradients into the energy required for synthesis of high-energy phosphate bonds. ATPases contain two linked complexes: F<sub>1</sub>, the hydrophilic catalytic core; and F<sub>0</sub>, the membrane-embedded protein channel. F<sub>1</sub> consists of three  $\alpha$  chains and three  $\beta$  chains, which are weakly homologous, as well as one  $\gamma$  chain, one  $\delta$  chain and one  $\epsilon$  chain. F<sub>0</sub> consists of three subunits: a, b and c. The  $\alpha$  chain of F<sub>1</sub> is a regulatory subunit that contains 509 amino acids. Mitochondrial ATPase  $\alpha$  chain (ATP5A) localizes to the mitochondria and catalyzes ATP synthesis.

## References

1. Helman A et al. p16(Ink4a)-induced senescence of pancreatic beta cells enhances insulin secretion. Nat Med N/A:N/A (2016).

2. Sen A & Cox RT Clueless is a conserved ribonucleoprotein that binds the ribosome at the mitochondrial outer membrane. Biol Open 5:195-203 (2016).

## Published Papers

Ziyan Huang;Ziyan Huang;Ziyan Huang;Ziyan Huang;Xinzhao Jiang;Xinzhao Jiang;Xinzhao Jiang;Xinzhao Jiang;Lichen Zhang;Lichen Zhang;Lichen Zhang;Lichen Zhang;Wei Wang;Wei Wang;Wei Wang;Wei Wang;Ziang Li;Ziang Li;Ziang Li;Ziang Li;Yiyang Huang;Yiyang Huang;Yiyang Huang;Yiyang Huang;Yichang Xu;Yichang Xu;Yichang Xu;Yichang Xu;Liang Zhou;Liang Zhou;Liang Zhou;Liang Zhou;Jie Wu;Jie Wu;Jie Wu;Jie Wu;Jincheng Tang;Jincheng Tang;Jincheng Tang;Jincheng Tang;Kun Xi;Kun Xi;Kun Xi;Kun Xi;Yu Feng;Yu Feng;Yu Feng;Yu Feng;Liang Chen;Liang Chen;Liang Chen;Liang Chen et al., Multifunctional manganese-based nanogels catalyze immune energy metabolism to promote bone repair, , (2025)

PMID:

Note: This product is for in vitro research use only and is not intended for use in humans or animals.