

# ATP5A1 Monoclonal Antibody (15H4C4)

## Product Details

Size	100 µg
Species Reactivity	Bovine, Fruit fly, Human, Mouse, Rat
Published Species	Rat, Fruit fly, Human
Host/Isotype	Mouse / IgG2b, kappa
Class	Monoclonal
Type	Antibody
Clone	15H4C4
Conjugate	Unconjugated
Immunogen	Bovine Complex V
Form	Liquid
Concentration	1 mg/mL
Purification	IgG fraction
Storage buffer	HEPES buffered saline
Contains	0.02% sodium azide
Storage conditions	4° C
RRID	AB_2533548

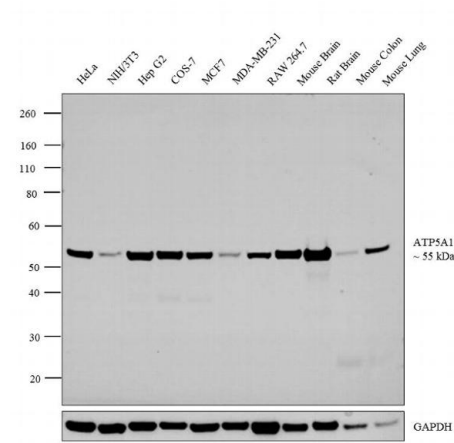
Applications	Tested Dilution	Publications
Western Blot (WB)	1.0 µg/mL	7 Publications
Immunohistochemistry (IHC)	1 µg/mL	2 Publications
Immunocytochemistry (ICC/IF)	1-2 µg/mL	1 Publication
Flow Cytometry (Flow)	1 µg/mL	-
Immunoprecipitation (IP)	-	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

## Product Specific Information

When performing IHC use heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

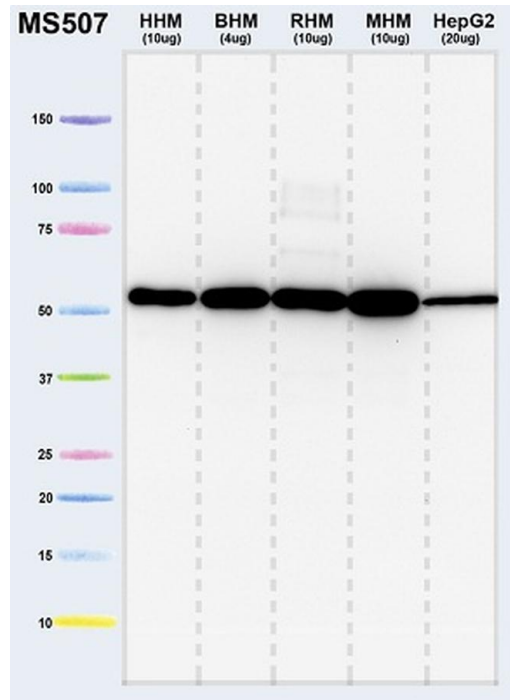
Positive control: Human, bovine, mouse and rat heart mitochondria.

Product Images For ATP5A1 Monoclonal Antibody (15H4C4)



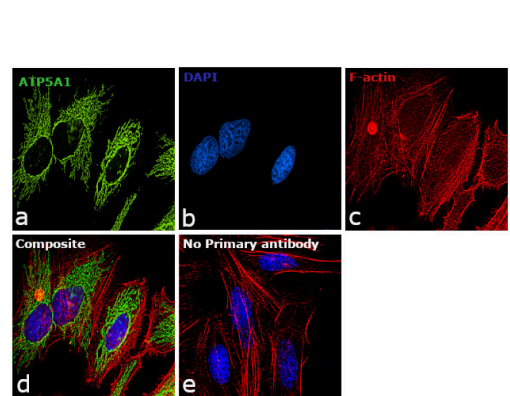
ATP5A1 Antibody (43-9800) in WB

Western blot analysis was performed on whole cell extracts (30 µg lysate) of HeLa (Lane 1), NIH/3T3 (Lane 2), Hep G2 (Lane 3), COS-7 (Lane 4), MCF7 (Lane 5), MDA-MB-231 (Lane 6), RAW 264.7 (Lane 7), tissue extracts of Mouse Brain (Lane 8), Rat Brain (Lane 9), Mouse Colon (Lane 10) and Mouse lung (Lane 11). The blot was probed with Anti-ATP5A1 Monoclonal Antibody (15H4C4) (Product # 43-9800, 1 µg/ml) and detected by chemiluminescence using Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, HRP conjugate (Product # A28177, 0.25 µg/ml, 1:4000 dilution). A 55 kDa band corresponding to ATP5A1 was detected across the cell lines and tissues tested.



ATP5A1 Antibody (43-9800) in WB

Western blot analysis of ATP5A1 in isolated heart mitochondria extracts using a ATP5A1 Monoclonal antibody (Product # 43-9800) at a concentration of 1 µg/mL. Lane 1: Isolated mitochondria from human heart at 10 µg, Lane 2: Isolated mitochondria from bovine heart at 4 µg, Lane 3: Isolated mitochondria from rat heart at 10 µg. Lane 4: Isolated mitochondria from mouse heart at 10 µg, Lane 5: HepG2 (Human liver hepatocellular carcinoma cell line) lysate at 20 µg. Predicted band size: 53 kDa.



ATP5A1 Antibody (43-9800) in ICC/IF

Immunofluorescence analysis of ATP5A1 was performed using 70% confluent log phase HeLa cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with ATP5A1 Monoclonal Antibody (15H4C4) (Product # 43-9800) at 2 µg/mL in 0.1% BSA, incubated at 4 degree Celsius overnight and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A28175) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415). Panel d represents the merged image showing mitochondrial localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.

View more figures on [thermofisher.com](https://thermofisher.com)

## Western Blot (7)

Journal of cell science

### Condensin II protein dysfunction impacts mitochondrial respiration and mitochondrial oxidative stress responses.

"43-9800 was used in Western Blot to identify condensin II as novel regulators of mitochondrial respiration and mitochondrial stress responses."

Authors: Deutschman E,Ward JR,Kumar A,Ray G,Welch N,Lemieux ME,Dasarathy S,Longworth MS

Year  
2019

Species  
Human

Dilution  
1:50000

Autophagy

### Regulation of autophagy, mitochondrial dynamics, and cellular bioenergetics by 4-hydroxynonenal in primary neurons.

"43-9800 was used in Western Blotting to show that mitochondria and autophagy are critical targets of 4-hydroxynonenal, and that the proteins targeted by 4-hydroxynonenal may change based on its concentration, leading to cellular dysfunction."

Authors: Dodson M,Wani WY,Redmann M,Benavides GA,Johnson MS,Ouyang X,Cofield SS,Mitra K,Darley-Usmar V,Zhang J

Year  
2019

Species  
Rat

[View more WB references on thermofisher.com](#)

## Immunohistochemistry (2)

Frontiers in cell and developmental biology

### mTORC2 protects the heart from high-fat diet-induced cardiomyopathy through mitochondrial fission in *Drosophila*.

"Published figure using ATP5A1 monoclonal antibody (Product # 43-9800) in Immunohistochemistry"

Authors: Liu P,Chang K,Requejo G,Bai H

Year  
2022

Frontiers in cell and developmental biology

### Generation and Characterization of Germline-Specific Autophagy and Mitochondrial Reactive Oxygen Species Reporters in *Drosophila*.

"43-9800 was used in Immunohistochemistry to provide a valuable tool that can be utilized in designing genetic screens to identify novel regulators of autophagy and redox homeostasis during oogenesis."

Authors: Nilangekar K,Murmu N,Sahu G,Shravage BV

Year  
2020

Species  
Fruit fly

Dilution  
1:100

## More applications with references on thermofisher.com

ICC/IF (1) IP (1) Misc (1)

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