

For Research Use Only

# ATP5A1 Monoclonal antibody, PBS Only

Catalog Number: 66037-1-PBS

Featured Product



## Basic Information

### Catalog Number:

66037-1-PBS

### Size:

100ug, Concentration: 1mg/ml by Nanodrop;

### Source:

Mouse

### Isotype:

IgG2b

### Immunogen Catalog Number:

AG8119

### GenBank Accession Number:

BC064562

### GeneID (NCBI):

498

### UNIPROT ID:

P25705

### Full Name:

ATP synthase, H<sup>+</sup> transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle

### Calculated MW:

60 kDa

### Observed MW:

50 kDa

### Purification Method:

Protein A purification

### CloneNo.:

1B10H3

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IP, Indirect ELISA

### Species Specificity:

human, mouse, rat, monkey

## Background Information

The ATP5A1 gene encodes the  $\alpha$  subunit of mitochondrial ATP synthase which produces ATP from ADP in the presence of a proton gradient across the membrane. The mitochondrial ATP synthase, also known as Complex V or F1F0 ATP synthase, is a multi-subunit enzyme complex consisting of two functional domains, the F1-containing the catalytic core and the F<sub>0</sub>-containing the membrane proton channel. F<sub>0</sub> domain has 10 subunits: a, b, c, d, e, f, g, OSCP, A6L, and F6. F1 is composed of subunits  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ ,  $\epsilon$ , and a loosely attached inhibitor protein IF1. Recently defect in ATP5A1 has been linked to the fatal neonatal mitochondrial encephalopathy. ATP5A1 is localized in the mitochondria and anti-ATP5A1 can be used as the loading control for mitochondrial or Complex V proteins. This antibody recognizes the endogenous ATP5A1 protein in lysates from various cell lines and tissues. The predicted MW of ATP5A1 is 60 kDa, while it undergoes the transit peptide cleavage to become a mature form around 50-55 kDa. Several isoforms of ATP5A1 exist due to the alternative splicing.

## Storage

### Storage:

Store at -80°C.

### Storage Buffer:

PBS Only

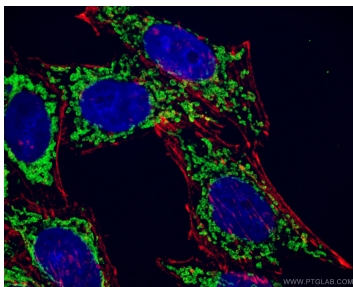
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

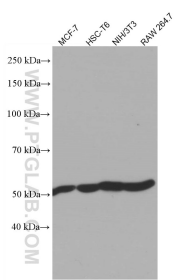
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

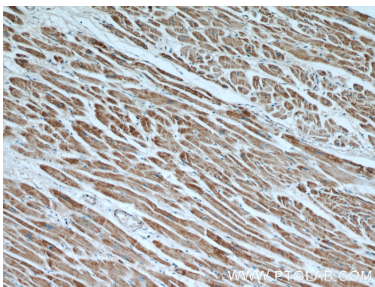
Selected Validation Data



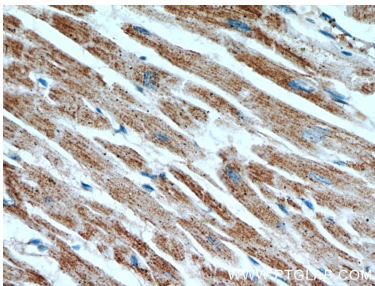
Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using 66037-1-Ig (ATP5A1 antibody) at dilution of 1:300 and CoraLite488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). Red: CL555-phalloidin staining of F-actin. . This data was developed using the same antibody clone with 66037-1-PBS in a different storage buffer formulation.



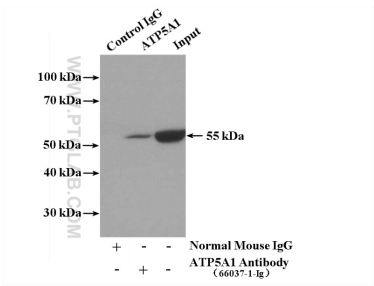
Various lysates were subjected to SDS PAGE followed by western blot with 66037-1-Ig (ATP5A1 antibody) at dilution of 1:25000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66037-1-PBS in a different storage buffer formulation.



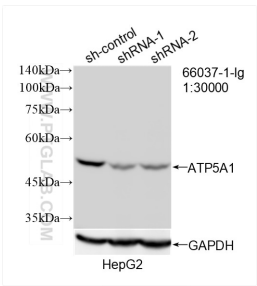
Immunohistochemical analysis of paraffin-embedded human heart using 66037-1-Ig(ATP5A1 antibody) at dilution of 1:50 (under 10x lens). This data was developed using the same antibody clone with 66037-1-PBS in a different storage buffer formulation.



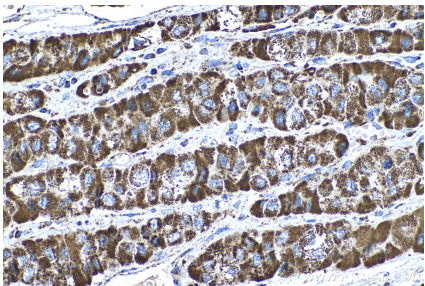
Immunohistochemical analysis of paraffin-embedded human heart using 66037-1-Ig(ATP5A1 antibody) at dilution of 1:50 (under 40x lens). This data was developed using the same antibody clone with 66037-1-PBS in a different storage buffer formulation.



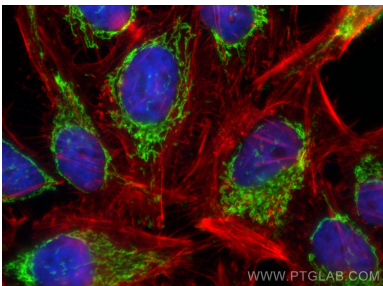
IP result of anti-ATP5A1 (IP:66037-1-Ig, 5ug; Detection:66037-1-Ig 1:500) with mouse heart tissue lysate 4000ug. This data was developed using the same antibody clone with 66037-1-PBS in a different storage buffer formulation.



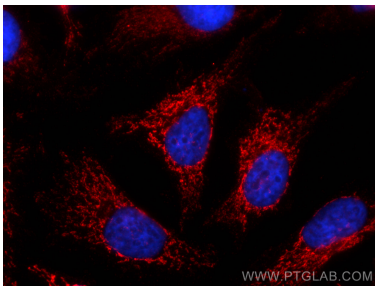
WB result of ATP5A1 antibody (66037-1-Ig; 1:30000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ATP5A1 transfected HepG2 cells. This data was developed using the same antibody clone with 66037-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66037-1-Ig (ATP5A1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66037-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using ATP5A1 antibody (66037-1-Ig, Clone: 1B10H3 ) at dilution of 1:800 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1), CL594-phalloidin (red). This data was developed using the same antibody clone with 66037-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using ATP5A1 antibody (66037-1-Ig, Clone: 1B10H3 ) at dilution of 1:800 and CoraLite®594-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 66037-1-PBS in a different storage buffer formulation.