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ATP5J Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12457c

Specification

ATP5J Antibody (Center) - Product Information

Application	**WB, IF, IHC-P,E**
Primary Accession	P18859
Other Accession	Q8SPH6, NP_001003701.1, NP_001003696.1
Reactivity	**Human, Mouse, Rat**
Predicted	**Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**28-56**

ATP5J Antibody (Center) - Additional Information

Gene ID 522

Other Names
ATP synthase-coupling factor 6, mitochondrial, ATPase subunit F6, ATP5J, ATP5A, ATPM

Target/Specificity
This ATP5J antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 28-56 amino acids from the Central region of human ATP5J.

Dilution
WB~~1:1000
IF~~1:10~50
IHC-P~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ATP5J Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

ATP5J Antibody (Center) - Protein Information

Name ATP5PF (HGNC:847)

Synonyms ATP5A, ATP5J, ATPM

Function Subunit F6, 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 (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). Part of the complex F(0) domain (PubMed:37244256). Part of the complex F(0) domain and the peripheric stalk, which acts as a stator to hold the catalytic alpha(3)beta(3) subcomplex and subunit a/ATP6 static relative to the rotary elements (By similarity).

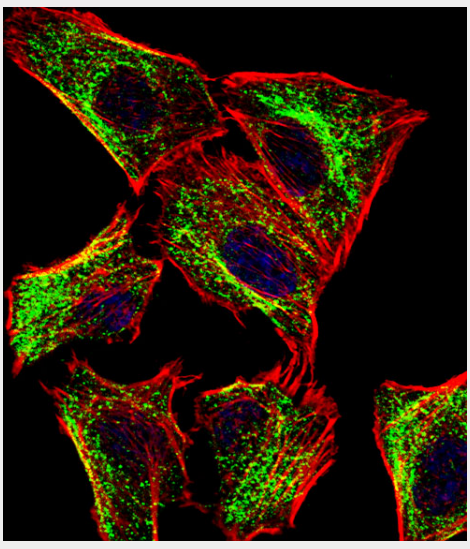
Cellular Location
Mitochondrion. Mitochondrion inner membrane.

ATP5J Antibody (Center) - Protocols

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

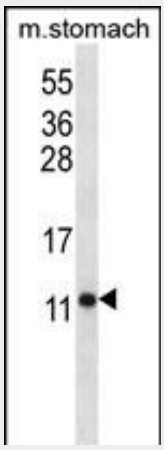
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATP5J Antibody (Center) - Images

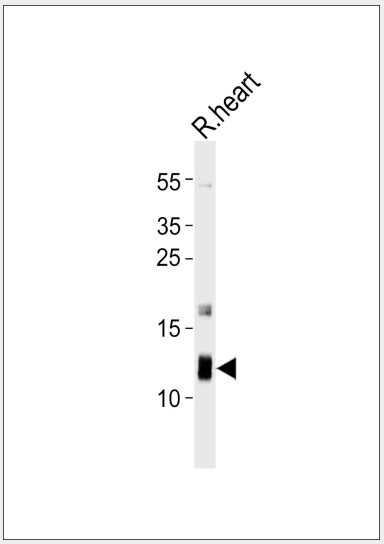


Fluorescent confocal image of U251 cell stained with ATP5J Antibody (Center)(Cat#AP12457c).U251 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with ATP5J primary antibody (1:25, 1 h at 37℃). For

secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37℃). Nuclei were counterstained with DAPI (blue) (10 μg/ml, 10 min).ATP5J immunoreactivity is localized to Mitochondria significantly.



ATP5J Antibody (Center) (Cat. #AP12457c) western blot analysis in mouse stomach tissue lysates (35ug/lane).This demonstrates the ATP5J antibody detected the ATP5J protein (arrow).



Western blot analysis of lysate from rat heart tissue lysate, using ATP5J Antibody (Center)(Cat. #AP12457c). AP12457c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.

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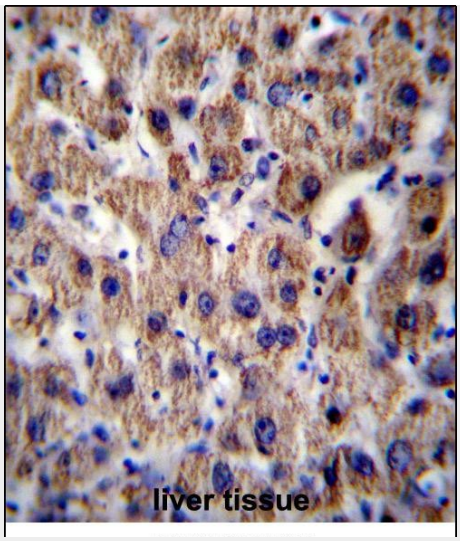

ATP5J Antibody (Center) (Cat. #AP12457c)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of ATP5J Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

ATP5J Antibody (Center) - Background

Mitochondrial ATP synthase catalyzes ATP synthesis, utilizing an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. It is composed of two linked multi-subunit complexes: the soluble catalytic core, F1, and the membrane-spanning component, Fo, which comprises the proton channel. The F1 complex consists of 5 different subunits (alpha, beta, gamma, delta, and epsilon) assembled in a ratio of 3 alpha, 3 beta, and a single representative of the other 3. The Fo seems to have nine subunits (a, b, c, d, e, f, g, F6 and 8). This gene encodes the F6 subunit of the Fo complex, required for F1 and Fo interactions. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. A pseudogene exists on chromosome Yp11.

ATP5J Antibody (Center) - References

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