



## Rabbit Anti-ATPIF1 antibody

SL12550R

|                               |   |
|-------------------------------|---|
| <b>Product Name:</b>          | ATPIF1  |
| <b>Chinese Name:</b>          | ATPIF1蛋白抗体  |
| <b>Alias:</b>                 | ATIF1_HUMAN; ATP synthase inhibitor protein; ATPase inhibitor; ATPase inhibitor mitochondrial; ATPase inhibitor protein; ATPase inhibitory factor 1; ATPI; ATPIF 1; ATPIF1; ATPIP; IF(1); IF1; Inhibitor of F(1)F(o)-ATPase; IP; MGC1167; MGC8898; mitochondrial.   |
| <b>Organism Species:</b>      | Rabbit  |
| <b>Clonality:</b>             | Polyclonal  |
| <b>React Species:</b>         | Human,Mouse,Rat,Dog,Horse,Rabbit,   |
| <b>Applications:</b>          | ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair)<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user.  |
| <b>Molecular weight:</b>      | 10kDa   |
| <b>Cellular localization:</b> | cytoplasmicMitochondrion  |
| <b>Form:</b>                  | Lyophilized or Liquid   |
| <b>Concentration:</b>         | 1mg/ml  |
| <b>immunogen:</b>             | KLH conjugated synthetic peptide derived from human ATPIF1/ATPase Inhibitory Factor 1:26-106/106  |
| <b>Lsotype:</b>               | IgG   |
| <b>Purification:</b>          | affinity purified by Protein A  |
| <b>Storage Buffer:</b>        | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.  |
| <b>Storage:</b>               | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| <b>PubMed:</b>                | <a href="#">PubMed</a>  |
| <b>Product Detail:</b>        | 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: F1, 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 Gamma chain. F<sub>0</sub> consists of three subunits: a, b and c. A mitochondrial F<sub>1</sub>-ATPase inhibitor protein, ATPIF1 (ATPase inhibitory factor 1), also known as IP, IF1, ATPI or ATPIP (ATPase inhibitor protein), binds to the C-terminal region of a Beta subunit of the F<sub>1</sub>-ATPase at low pH values and, via interference of the Beta and Gamma subunit interaction, ATPIF1 regulates the activity of the F<sub>1</sub>F<sub>0</sub>-ATPase. This reversible ATPIF1 binding to F<sub>1</sub>F<sub>0</sub>-ATPase also occurs on the surface of endothelial cells.

**Function:**

Endogenous F(1)F(o)-ATPase inhibitor limiting ATP depletion when the mitochondrial membrane potential falls below a threshold and the F(1)F(o)-ATP synthase starts hydrolyzing ATP to pump protons out of the mitochondrial matrix.

**Subunit:**

Homodimer; represents the active form and is present at a pH value below 6.5.

Homotetramer; represents the inactive form and is present at a pH value above 7.0 (By similarity).

**Subcellular Location:**

Mitochondrion.

**Post-translational modifications:**

Exhibits variability in chain length, mitochondria have distinct pools of protein cleaved after the 24th, 25th, and 26th amino acid.

**Similarity:**

Belongs to the ATPase inhibitor family.

**SWISS:**

Q9UII2

**Gene ID:**

93974

**Database links:**

[Entrez Gene: 93974](#)Human

[Entrez Gene: 11983](#)Mouse

[Entrez Gene: 25392](#)Rat

[Entrez Gene: 327699](#)Cow

[SwissProt: P01096](#)Cow

[SwissProt: Q9UII2](#)Human

[SwissProt: O35143](#)Mouse

[SwissProt: Q03344](#)Rat

[Unigene: 59150](#)Cow

[Unigene: 590908](#)Human

[Unigene: 726089](#)Human

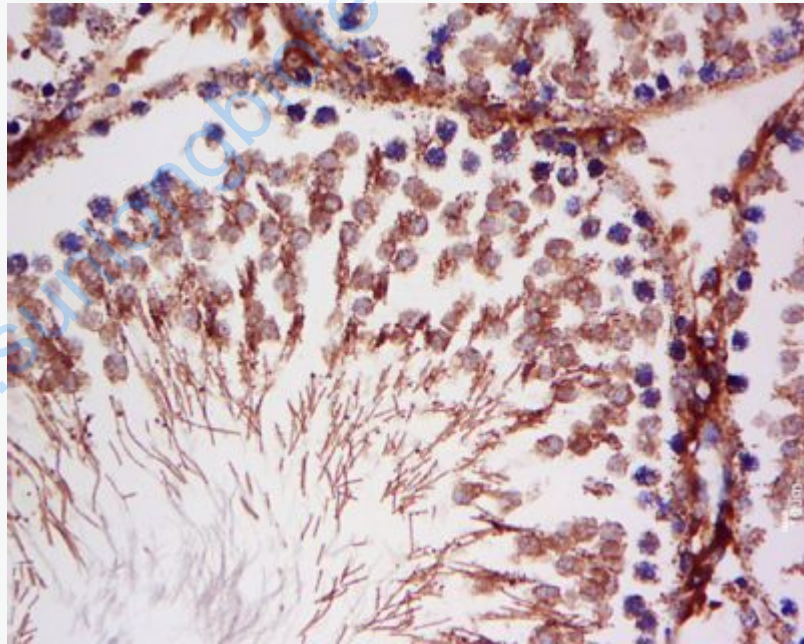
[Unigene: 2171](#)Mouse

[Unigene: 1658](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

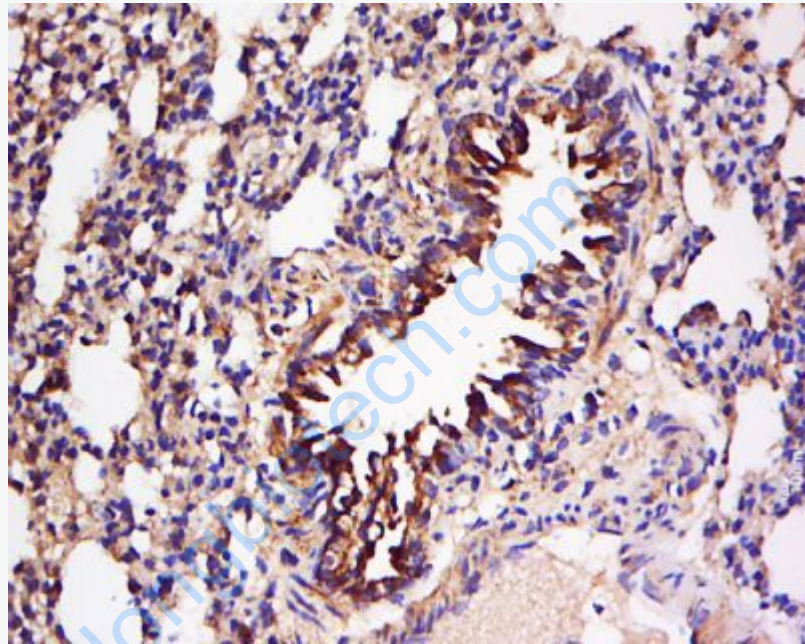
**Picture:**



Tissue/cell: Rat testis tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-ATPIF1 Polyclonal Antibody, Unconjugated(SL12550R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: Rat lung tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-ATPIF1 Polyclonal Antibody, Unconjugated(SL12550R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining