

**Anti-ATP5D Antibody**  
Rabbit polyclonal antibody to ATP5D  
Catalog # AP61207

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**Specification**

**Anti-ATP5D Antibody - Product Information**

Application	WB, IF
Primary Accession	<a href="#">P30049</a>
Other Accession	<a href="#">Q9D3D9</a>
Reactivity	Human, Mouse, Rat, Monkey, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	17490

**Anti-ATP5D Antibody - Additional Information**

Gene ID 513

**Other Names**

ATP synthase subunit delta mitochondrial; F-ATPase delta subunit

**Target/Specificity**

Recognizes endogenous levels of ATP5D protein.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/50 - 1/200), IF/IC (1/100 - 1/500)

IF~~WB (1/500 - 1/1000), IH (1/50 - 1/200), IF/IC (1/100 - 1/500)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-ATP5D Antibody - Protein Information**

Name ATP5F1D ([HGNC:837](#))

**Function**

Mitochondrial membrane ATP synthase (F(1)F(0) ATP synthase or Complex V) 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:<a href="http://www.uniprot.org/citations/29478781" target="\_blank">29478781</a>). F-type ATPases consist of two structural domains, F(1) - containing the extramembraneous catalytic core, and F(0) - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP turnover in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Part of the complex F(1)

domain and of the central stalk which is part of the complex rotary element. Rotation of the central stalk against the surrounding  $\alpha(3)\beta(3)$  subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits (PubMed:<a href="http://www.uniprot.org/citations/1531933" target="\_blank">1531933</a>).

#### Cellular Location

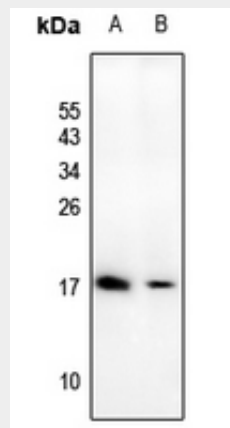
Mitochondrion. Mitochondrion inner membrane.

#### Anti-ATP5D Antibody - Protocols

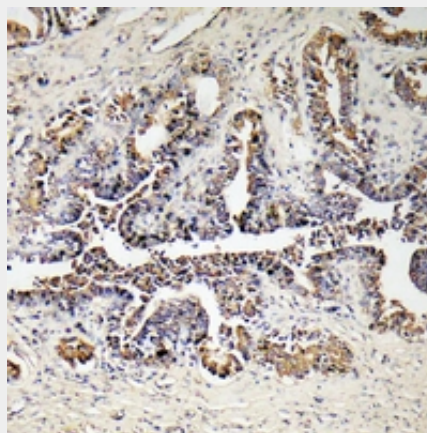
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-ATP5D Antibody - Images



Western blot analysis of ATP5D expression in rat heart (A), mouse lung (B) whole cell lysates.



Immunohistochemical analysis of ATP5D staining in human prostate cancer formalin fixed paraffin

embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of ATP5D staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a Alexa Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

#### **Anti-ATP5D Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ATP5D. The exact sequence is proprietary.