

**ATP5E Antibody (monoclonal) (M01)**

Mouse monoclonal antibody raised against a full length recombinant ATP5E.

Catalog # AT1237a

**Specification**

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**ATP5E Antibody (monoclonal) (M01) - Product Information**

|                   |                          |
|-------------------|--------------------------|
| Application       | WB, IHC                  |
| Primary Accession | <a href="#">P56381</a>   |
| Other Accession   | <a href="#">BC001690</a> |
| Reactivity        | Human                    |
| Host              | mouse                    |
| Clonality         | Monoclonal               |
| Isotype           | IgG1 Kappa               |
| Calculated MW     | 5780                     |

**ATP5E Antibody (monoclonal) (M01) - Additional Information**

**Gene ID** 514

**Other Names**

ATP synthase subunit epsilon, mitochondrial, ATPase subunit epsilon, ATP5E

**Target/Specificity**

ATP5E (AAH01690, 1 a.a. ~ 51 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**

ATP5E Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

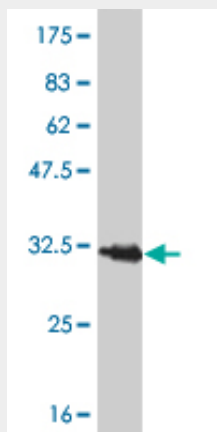
**ATP5E Antibody (monoclonal) (M01) - Protocols**

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

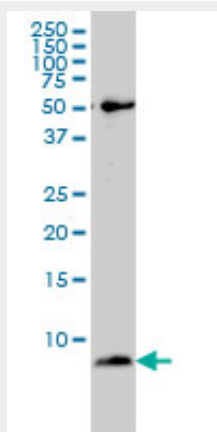
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

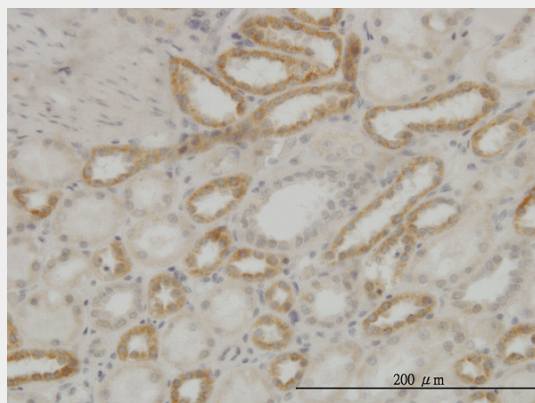
#### ATP5E Antibody (monoclonal) (M01) - Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (31.35 KDa) .



ATP5E monoclonal antibody (M01), clone 2F3 Western Blot analysis of ATP5E expression in SW-13 (Cat # AT1237a)



Immunoperoxidase of monoclonal antibody to ATP5E on formalin-fixed paraffin-embedded human kidney. [antibody concentration 3 ug/ml]

**ATP5E Antibody (monoclonal) (M01) - Background**

This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, utilizing an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. ATP synthase is composed of two linked multi-subunit complexes: the soluble catalytic core, F<sub>1</sub>, and the membrane-spanning component, F<sub>o</sub>, comprising the proton channel. The catalytic portion of mitochondrial ATP synthase consists of 5 different subunits (alpha, beta, gamma, delta, and epsilon) assembled with a stoichiometry of 3 alpha, 3 beta, and a single representative of the other 3. The proton channel consists of three main subunits (a, b, c). This gene encodes the epsilon subunit of the catalytic core. Two pseudogenes of this gene are located on chromosomes 4 and 13.

**ATP5E Antibody (monoclonal) (M01) - References**

1. Assessing the actual contribution of IF1, an inhibitor of mitochondrial FoF<sub>1</sub>, to ATP homeostasis, cell growth, mitochondrial morphology and cell viability. Fujikawa M, Imamura H, Nakamura J, Yoshida M. *J Biol Chem*. 2012 Apr 9;287(15):5000-5008. 2. Mitochondrial ATP synthase deficiency due to a mutation in the ATP5E gene for the F<sub>1</sub> epsilon subunit. Mayr JA, Havlickova V, Zimmermann F, Magler I, Kaplanova V, Jesina P, Pecinova A, Nuskova H, Koch J, Sperl W, Houstek J. *Hum Mol Genet*. 2010 Jul 1. [Epub ahead of print] 3. Knockdown of F<sub>1</sub> epsilon subunit decreases mitochondrial content of ATP synthase and leads to accumulation of subunit c. Havlickova V, Kaplanova V, Nuskova H, Drahota Z, Houstek J. *Biochim Biophys Acta*. 2009 Dec 21. [Epub ahead of print]