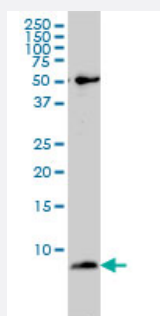


ATP5E monoclonal antibody (M01), clone 2F3

Catalog # H00000514-M01

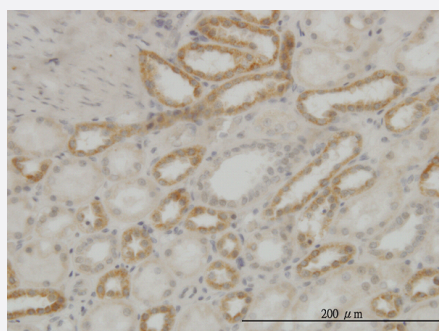
Size 100 ug

Applications



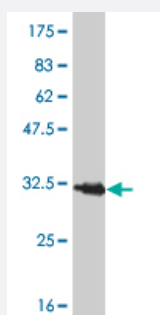
Western Blot (Cell lysate)

ATP5E monoclonal antibody (M01), clone 2F3 Western Blot analysis of ATP5E expression in SW-13 (Cat # L005V1).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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



Western Blot detection against Immunogen (31.35 KDa) .

Specification

Product Description

Mouse monoclonal antibody raised against a full length recombinant ATP5E.

Immunogen	ATP5E (AAH01690, 1 a.a. ~ 51 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MVAYWRQAGLSYIRYSQICAKAVRDALKTEFKANAECTSGSNVKIVKVKKE
Host	Mouse
Reactivity	Human
Isotype	IgG1 Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (31.35 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

ATP5E monoclonal antibody (M01), clone 2F3 Western Blot analysis of ATP5E expression in SW-13 (Cat # L005V1).

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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

[Protocol Download](#)

- ELISA

Gene Info — ATP5E

Entrez GeneID	514
GeneBank Accession#	BC001690
Protein Accession#	AAH01690

Gene Name	ATP5E
Gene Alias	ATPE, MGC104243
Gene Description	ATP synthase, H ⁺ transporting, mitochondrial F1 complex, epsilon subunit
Omim ID	606153
Gene Ontology	Hyperlink
Gene Summary	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, F1, and the membrane-spanning component, Fo, 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. [provided by RefSeq]
Other Designations	F(0)F(1)-ATPase H(+)-transporting two-sector ATPase OTTHUMP00000031404 OTTHUMP00000174442 OTTHUMP00000174443 mitochondrial ATP synthase epsilon chain mitochondrial ATPase

Publication Reference

- [ATP Synthase Subunit Epsilon Overexpression Promotes Metastasis by Modulating AMPK Signaling to Induce Epithelial-to-Mesenchymal Transition and Is a Poor Prognostic Marker in Colorectal Cancer Patients.](#)

Huang YJ, Jan YH, Chang YC, Tsai HF, Wu AT, Chen CL, Hsiao M.

Journal of Clinical Medicine 2019 Jul; 8(7):E1070.

Application: IHC-P, WB-Ce, WB-Tr, Human, CX-1, DLD-1, H3347, HCT-116, SW480, SW620 cells, Human colorectal cancer

- [Assembly of human mitochondrial ATP synthase through two separate intermediates, F1-c-ring and b-e-g complex.](#)

Fujikawa M, Sugawara K, Tanabe T, Yoshida M.

FEBS Letters 2015 Sep; 589(19 Pt):2707.

Application: WB, Human, HeLa cells

- [Assessing actual contribution of IF1, inhibitor of mitochondrial FoF1, to ATP homeostasis, cell growth, mitochondrial morphology, and cell viability.](#)

Fujikawa M, Imamura H, Nakamura J, Yoshida M.

The Journal of Biological Chemistry 2012 May; 287(22):18781.

Application: WB, Human, HeLa cells

- [Mitochondrial ATP synthase deficiency due to a mutation in the ATP5E gene for the F1 {varepsilon} subunit.](#)
Mayr JA, Havlickova V, Zimmermann F, Magler I, Kaplanova V, Jesina P, Pecinova A, Nuskova H, Koch J, Sperl W, Houstek J.
Human Molecular Genetics 2010 Sep; 19(17):3430.

Application: WB-Ce, Human, Human fibroblasts

- [Knockdown of F\(1\) 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.
Biochimica et Biophysica Acta 2010 Jun; 1797(6-7):1124.

Application: WB-Tr, Human, HEK 293 cells

Pathway

- [Metabolic pathways](#)
- [Oxidative phosphorylation](#)