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ATP5E Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant ATP5E.
Catalog # AT1237a

Product Information

Application	WB, IHC
Primary Accession	P56381
Other Accession	BC001690
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	2F3
Calculated MW	5780

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 IHC~~1:100~500
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.

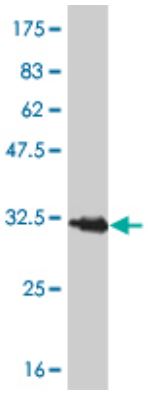
Background

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, 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.

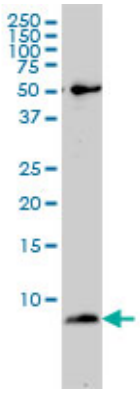
References

1.Assessing the actual contribution of IF1, an inhibitor of mitochondrial FoF1, to ATP homeostasis, cell growth, mitochondrial morphology and cell viability.Fujikawa M, Imamura H, Nakamura J, Yoshida M.J Biol Chem. 2012 Apr 9.2.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.Hum Mol Genet. 2010 Jul 1. [Epub ahead of print]3.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.Biochim Biophys Acta. 2009 Dec 21. [Epub ahead of print]

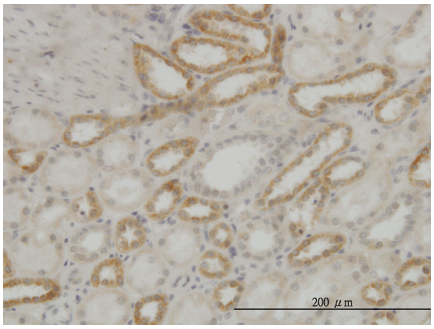
Images



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]