10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ATP5J2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5346c

Product Information

Application	WB, IHC-P, E
Primary Accession	P56134
Other Accession	NP_004880.1
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB26870
Calculated MW	10918
Antigen Region	18-46

Additional Information

Gene ID	9551
Other Names	ATP synthase subunit f, mitochondrial, ATP5J2, ATP5JL
Target/Specificity	This ATP5J2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 18-46 amino acids from the Central region of human ATP5J2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ATP5J2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ATP5MF (HGNC:848)
Synonyms	ATP5J2, ATP5JL
Function	Subunit f, of the mitochondrial membrane ATP synthase complex (F(1)F(0)

	ATP synthase or Complex V) that 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:37244256). ATP synthase complex consist of a soluble F(1) head domain - the catalytic core - and a membrane F(1) domain - the membrane proton channel (PubMed:37244256). These two domains are linked by a central stalk rotating inside the F(1) region and a stationary peripheral stalk (PubMed:37244256). During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation (Probable). In vivo, can only synthesize ATP although its ATP hydrolase activity can be activated artificially in vitro (By similarity). Part of the complex F(0) domain (PubMed:37244256).
Cellular Location	Mitochondrion. Mitochondrion inner membrane; Single-pass membrane protein

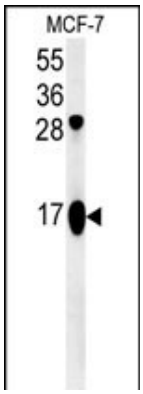
Background

Mitochondrial ATP synthase catalyzes ATP synthesis, utilizing an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. It is composed of two linked multi-subunit complexes: the soluble catalytic core, F1, and the membrane-spanning component, F0, which comprises 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 single representatives of the gamma, delta, and epsilon subunits. The proton channel likely has nine subunits (a, b, c, d, e, f, g, F6 and 8). This gene encodes the f subunit of the F0 complex.

References

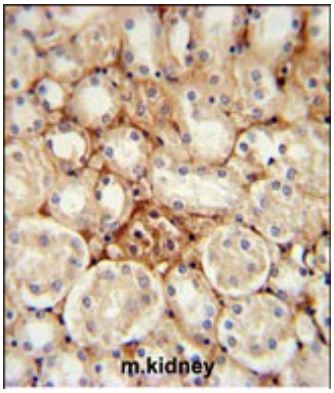
Wang, L., et al. Cancer Epidemiol. Biomarkers Prev. 17(12):3558-3566(2008)
Stelzl, U., et al. Cell 122(6):957-968(2005)
Cross, R.L. Nature 427(6973):407-408(2004)

Images



ATP5J2 Antibody (Center) (Cat. #AP5346c) western blot analysis in MCF-7 cell line lysates (35ug/lane).This demonstrates the ATP5J2 antibody detected the ATP5J2 protein (arrow).

ATP5J2 Antibody (Center) (Cat. #AP5346c) immunohistochemistry analysis in formalin fixed and paraffin embedded mouse kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ATP5J2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



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