SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-ATP5B antibody

SL8600R

Product Name:	ATP5B
Chinese Name:	ATP合成酶β5抗体
Alias:	ATP 5B; ATP synthase H+ transporting mitochondrial F1 complex beta polypeptide; ATP Synthase H+ Transporting Mitochondrial F1 Complex Subunit Beta; ATP synthase subunit beta mitochondrial; ATP synthase subunit beta, mitochondrial; ATP5B; ATPB; ATPB_HUMAN; ATPMB; ATPSB; MGC5231; Mitochondrial ATP synthase beta subunit; Mitochondrial ATP Synthase Subunit Beta; Mitochondrial ATP synthetase beta subunit.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	51kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ATP5B:425-529/529
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Mitochondrial ATP synthase is composed of two multi-subunit complexes that utilize an inner membrane electrochemical gradient to catalyze the synthesis of ATP during

oxidative phosphorylation. The two multi-subunit complexes are designated F1 and F0, the former of which comprises the soluble catalytic core and the latter of which comprises the membrane-spanning proton channel of ATP synthase. F1 consists of five distinct subunits, designated ATP5A, ATP5B, ATP5C1, ATP5D and ATP5E, while F0 consists of ten subunits, designated ATP5H, ATP5G1, ATP5I, ATP5G2, ATP5J2, ATP5J, ATP5G3, ATP5S, ATP5F1 and ATP5L. ATP5B, also designated ATPMB, ATPSB or mitochondrial ATP synthetase, beta subunit, is a 529 amino acid protein that localizes to the mitochondrial membrane and exists as a subunit of the F0 complex. ATP5B is encoded by a nuclear gene and assembled with the other subunits encoded by both mitochondrial and nuclear genes. The ATP5B gene is activated by members of the Ets family of transcription factors, suggesting that Ets transcription factors are involved in the enhanced expression of the ATP5B gene in highly proliferating cells and in the coordinate transcription of nuclear genes for mitochondrial proteins. ATP5B mRNA levels vary among species through transcriptional control with high expression levels in heart, lower levels in skeletal muscle and the lowest levels in liver and kidney.

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. 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 synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Subunits alpha and beta form the catalytic core in F(1). 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.

Subunit:
F-type ATPases have 2 components, CF(1) - the catalytic core - and CF(0) - the membrane proton channel. CF(1) has five subunits: alpha(3), beta(3), gamma(1), delta(1), epsilon(1). CF(0) has three main subunits: a, b and c. Component of an ATP synthase complex composed of ATP5F1, ATP5G1, ATP5E, ATP5H, ATP5I, ATP5J, ATP5J2, MT-ATP6, MT-ATP8, ATP5A1, ATP5B, ATP5D, ATP5C1, ATP5O, ATP5L, USMG5 and MP68

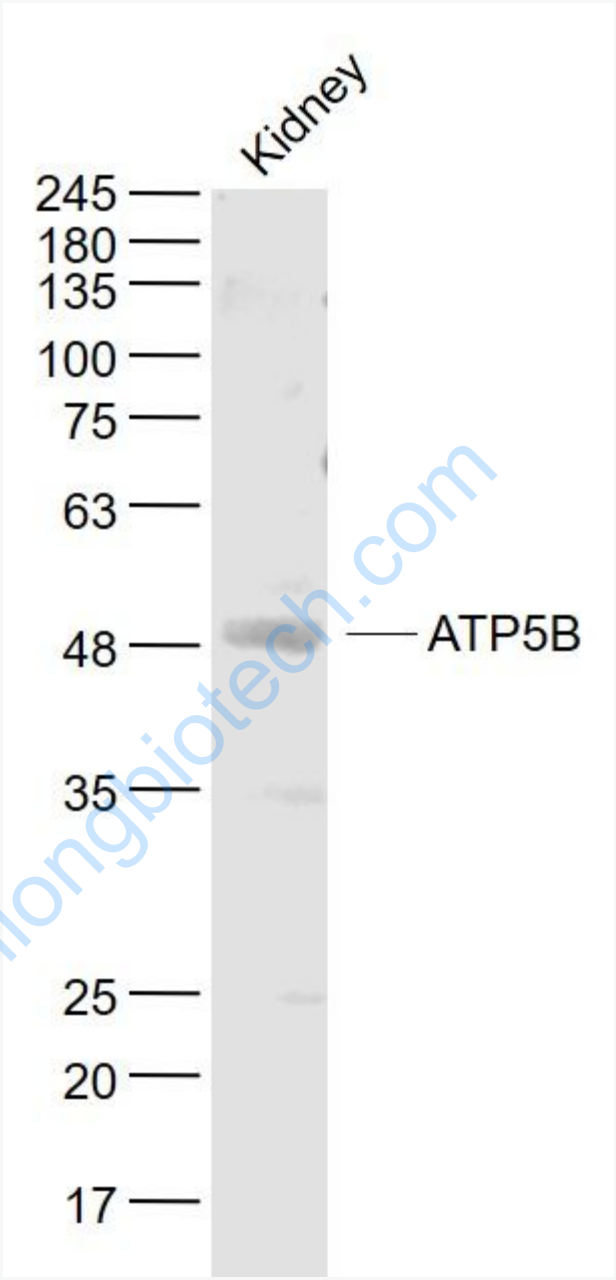
Subcellular Location:
Mitochondrion. Mitochondrion inner membrane. Peripheral membrane protein.

Similarity:
Belongs to the ATPase alpha/beta chains family.

SWISS:
P06576

Gene ID:

	506 **Database links:** Entrez Gene: 327675 Cow Entrez Gene: 506 Human Entrez Gene: 11947 Mouse Entrez Gene: 171374 Rat GenBank: BC016512 Human Omim: 102910 Human SwissProt: P00829 Cow SwissProt: P06576 Human SwissProt: P56480 Mouse SwissProt: P10719 Rat Unigene: 406510 Human Unigene: 238973 Mouse Unigene: 92965 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:	 Sample: Kidney (Mouse) Lysate at 40 ug Primary: Anti- ATP5B (SL8600R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 51 kD

	Observed band size: 49 kD