Product Name: **ATP5C1 Rabbit Polyclonal Antibody**
Catalog #: **APRab07326**
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:20000-1:40000
Molecular Weight	33kDa

Antigen Information

Gene Name	ATP5C1
Alternative Names	ATP5C1; ATP5C; ATP5CL1; ATP synthase subunit gamma; mitochondrial; F-ATPase gamma subunit
Gene ID	509.0
SwissProt ID	P36542
Immunogen	The antiserum was produced against synthesized peptide derived from human ATP5C1. AA range:131-180

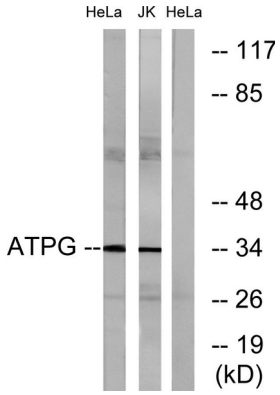
Background

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 gamma subunit of the catalytic core. Alternatively spliced transcript variants encoding different isoforms have been identified. This gene also has a pseudogene onfunction: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. Part of the complex F(1) domain and the central stalk which is part of the complex rotary element. The gamma subunit protrudes into the catalytic domain formed of alpha(3)beta(3). 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.,function:Produces ATP from ADP in the presence of a proton gradient across the membrane. The gamma chain is believed to be important in regulating ATPase activity and the flow of protons through the CF(0) complex.,similarity:Belongs to the ATPase gamma chain family.,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.,tissue specificity:Isoform H is expressed specifically in the heart and skeletal muscle, which require rapid energy supply. Isoform L type is expressed in the brain, liver, kidney. Both forms are expressed in the skin, intestine, stomach, and aorta.,

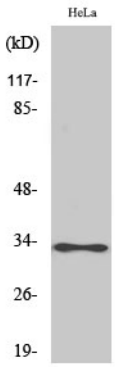
Research Area

Oxidative phosphorylation;Alzheimer's disease;Parkinson's disease;Huntington's disease;

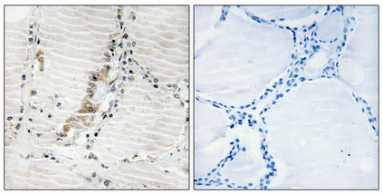
Image Data



Western blot analysis of lysates from HeLa cells and Jurkat cells, using ATPG Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using ATP5C1 Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human thyroid gland. Antibody was diluted at 1:100（4°,overnight）. High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl（right）obtaned from antibody was pre-absorbed by immunogen peptide.