

Basic Information

Product Name	Anti-ATP5F1A Antibody	
Gene Name	ATP5F1A	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, IF, ICC/IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human ATP5F1A recombinant protein (Position: R12-Q520).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	55 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied.

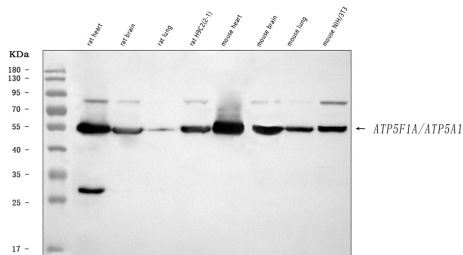
Background Information

ATP synthase F1 subunit alpha, mitochondrial is an enzyme that in humans is encoded by the ATP5F1A gene. This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, using 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 alpha subunit of the catalytic core. Alternatively spliced transcript variants encoding the different isoforms have been identified. Pseudogenes of this gene are located on chromosomes 9, 2, and 16.

Reference

Anti-ATP5F1A Antibody被引用在1文献中。

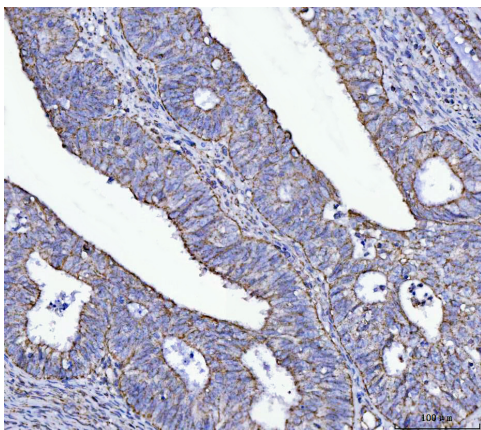
Selected Validation Data



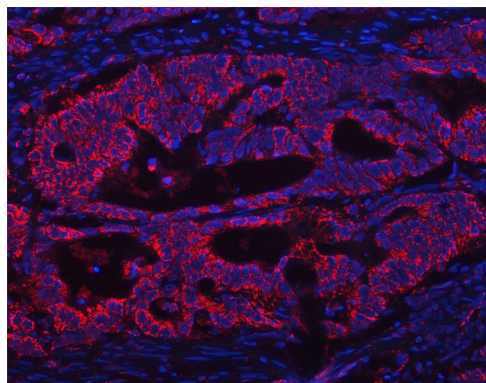
Western blot analysis of ATP5F1A using anti-ATP5F1A antibody (A32267-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat heart tissue lysates,
Lane 2: rat brain tissue lysates,
Lane 3: rat lung tissue lysates,
Lane 4: rat H9C2(2-1) whole cell lysates,
Lane 5: mouse heart tissue lysates,
Lane 6: mouse brain tissue lysates,
Lane 7: mouse lung tissue lysates,
Lane 8: mouse NIH/3T3 whole cell lysates.

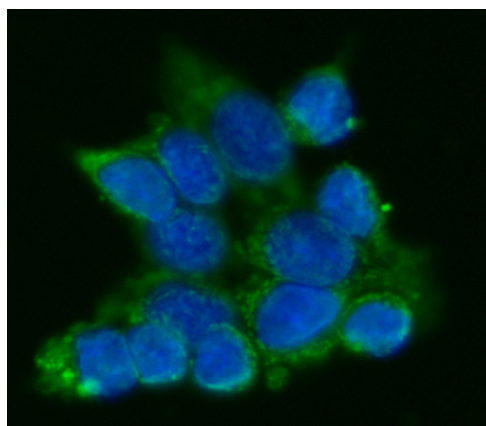
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ATP5F1A antigen affinity purified polyclonal antibody (A32267-2) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ATP5F1A at approximately 55 kDa. The expected band size for ATP5F1A is at 60 kDa.



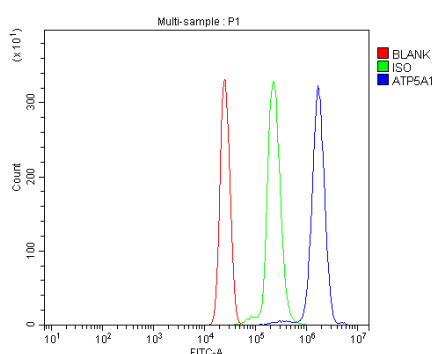
IHC analysis of ATP5F1A using anti-ATP5F1A antibody (A32267-2). ATP5F1A was detected in a paraffin-embedded section of human endometrial adenocarcinoma tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-ATP5F1A Antibody (A32267-2) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



IF analysis using anti- ATP5F1A antibody (A32267-2). detected in paraffin-embedded section of human colon cancer tissue. The tissue section were stained using the DyLight550-conjugated Anti-rabbit IgG Secondary Antibody (red)(Catalog#BA1135) and counterstained with DAPI (blue).



IF analysis of ATP5F1A using anti-ATP5F1A antibody (A32267-2). ATP5F1A was detected in an immunocytochemical section of HepG2 cells. The section was incubated with rabbit anti-ATP5F1A Antibody (A32267-2) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of U937 cells using anti-ATP5F1A antibody (A32267-2).

Overlay histogram showing U937 cells stained with A32267-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATP5F1A Antibody (A32267-2) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.