

## Basic Information

Product Name	Anti-ATPB/ATP5F1B Antibody	
Gene Name	ATP5F1B	
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 <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human ATP5F1B recombinant protein (Position: Q123-S529).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	50 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.	

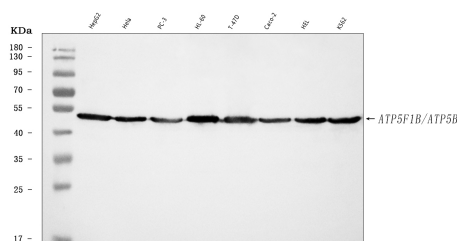
## Storage

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

## Background Information

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, F<sub>1</sub>, and the membrane-spanning component, F<sub>o</sub>, 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 beta subunit of the catalytic core.

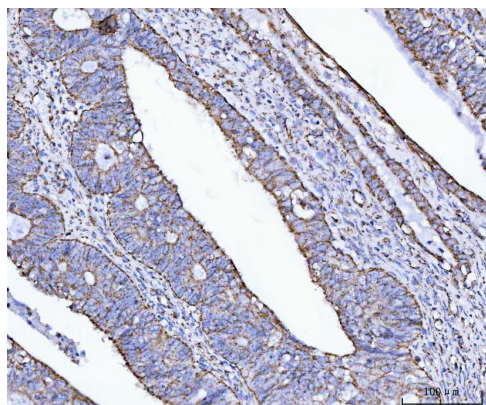
## Selected Validation Data



Western blot analysis of ATPB/ATP5F1B using anti-ATPB/ATP5F1B antibody (A32270-3). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

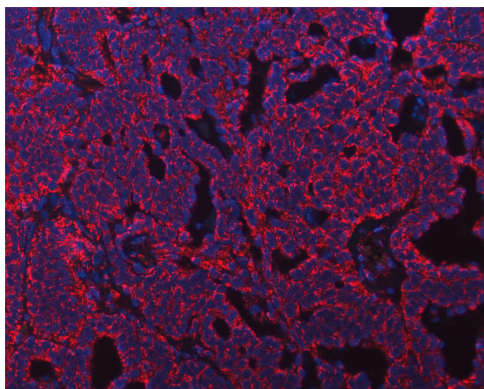
Lane 1: HepG2 whole cell lysates,  
Lane 2: Hela whole cell lysates,  
Lane 3: PC-3 whole cell lysates,  
Lane 4: HL-60 whole cell lysates,  
Lane 5: T-47D whole cell lysates,  
Lane 6: Caco-2 whole cell lysates,  
Lane 7: HEL whole cell lysates,  
Lane 8: K562 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ATPB/ATP5F1B antigen affinity purified polyclonal antibody (A32270-3) 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 ATPB/ATP5F1B at approximately 50 kDa. The expected band size for ATPB/ATP5F1B is at 57 kDa.

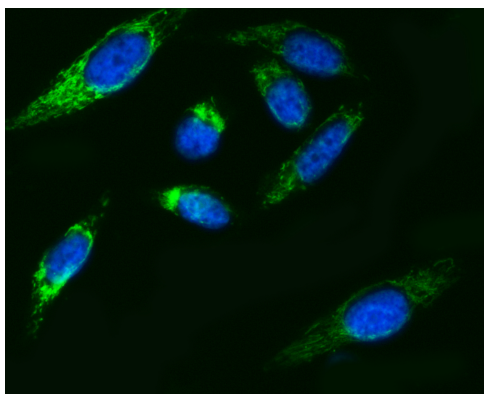


IHC analysis of ATPB/ATP5F1B using anti-ATPB/ATP5F1B antibody (A32270-3).

ATPB/ATP5F1B 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-ATPB/ATP5F1B Antibody (A32270-3) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.

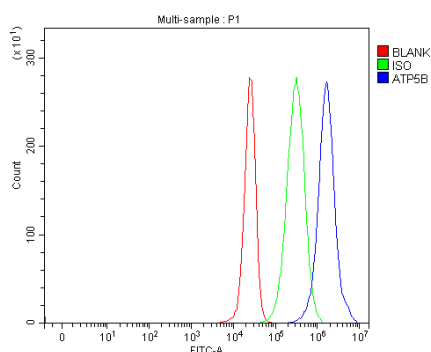


IF analysis using anti- ATP5F1B antibody (A32270-3). detected in paraffin-embedded section of human ovarian cancer tissue. The tissue section were stained using the DyLight550-conjugated Anti-rabbit IgG Secondary Antibody (red)(Catalog#BA1135) and counterstained with DAPI (blue).



IF analysis of ATPB/ATP5F1B using anti-ATPB/ATP5F1B antibody (A32270-3).

ATPB/ATP5F1B was detected in an immunocytochemical section of PC-3 cells. The section was incubated with rabbit anti-ATPB/ATP5F1B Antibody (A32270-3) 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 293T cells using anti-ATPB/ATP5F1B antibody (A32270-3).

Overlay histogram showing 293T cells stained with A32270-3 (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-ATPB/ATP5F1B Antibody (A32270-3) 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.