

Basic Information

Product Name	Anti-ACLY Antibody	
Gene Name	ACLY	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E. coli-derived human ATP citrate lyase recombinant protein (Position: M1-I180). Human ATP citrate lyase shares 95% amino acid (aa) sequence identity with both mouse and rat ATP citrate lyase.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	121 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (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.

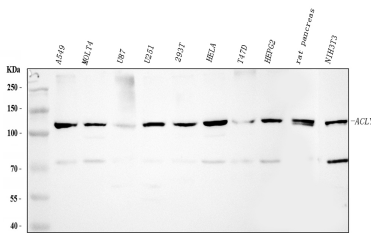
Background Information

ATP citrate lyase, also known as ACLY, is an enzyme that in animals represents an important step in fatty acid biosynthesis. ATP citrate lyase is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues. The enzyme is a tetramer of apparently identical subunits. The product, acetyl-CoA, in animals serves several important biosynthetic pathways, including lipogenesis and cholesterologenesis. It is activated by insulin. In nervous tissue, ATP citrate-lyase may be involved in the biosynthesis of acetylcholine. In plants, ATP citrate lyase generates the acetyl-CoA for cytosolically-synthesized metabolites.

Reference

Anti-ACLY Antibody被引用在2文献中。

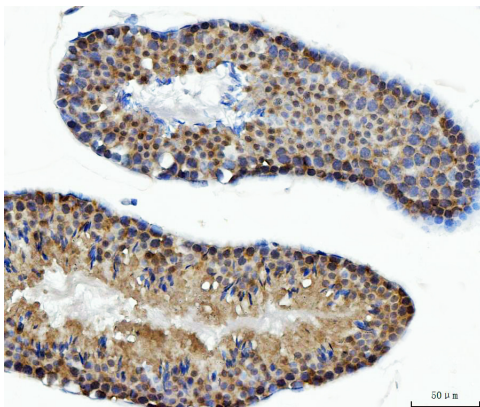
Selected Validation Data



Western blot analysis of ACLY using anti-ACLY antibody (PB10024). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

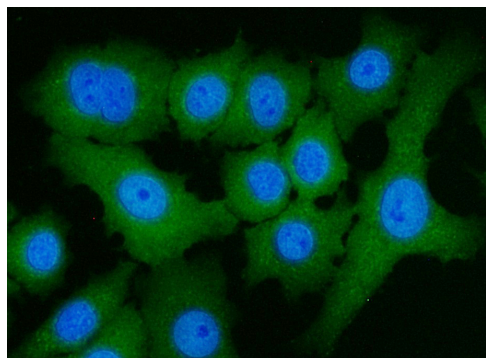
Lane 1: A549 whole cell lysates,
Lane 2: MOLT4 whole cell lysates,
Lane 3: U87 whole cell lysates,
Lane 4: U251 whole cell lysates,
Lane 5: 293T whole cell lysates,
Lane 6: HELA whole cell lysates,
Lane 7: T47D whole cell lysates,
Lane 8: HEPG2 whole cell lysates,
Lane 9: rat pancreas tissue lysates,
Lane 10: NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ACLY antigen affinity purified polyclonal antibody (PB10024) 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 ACLY at approximately 121 kDa. The expected band size for ACLY is at 121 kDa.



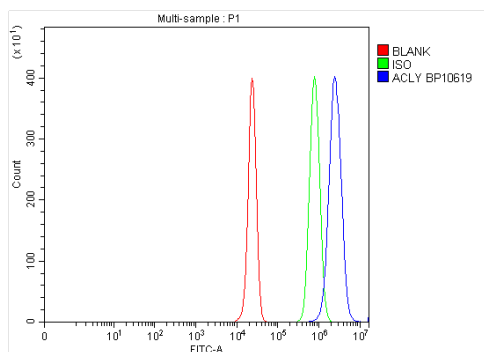
IHC analysis of ACLY using anti-ACLY antibody (PB10024).

ACLY was detected in a paraffin-embedded section of mouse testis tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-ACLY Antibody (PB10024) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of ACLY using anti-ACLY antibody (PB10024).

ACLY was detected in an immunocytochemical section of A549 cells. The section was incubated with rabbit anti-ACLY Antibody (PB10024) 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 HepG2 cells using anti-ACLY antibody (PB10024).

Overlay histogram showing HepG2 cells stained with PB10024 (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-ACLY Antibody (PB10024) 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.