

Basic Information

Product Name	Anti-ACLY Antibody	
Gene Name	ACLY	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS , 0.02% NaN3 , 1 mg 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	125KD	
Dilution Ratios	Western blot(WB):	1:500-2000
	Immunohistochemistry in paraffin section (IHC):	1:50-400
	Immunocytochemistry/Immunofluorescence(ICC/IF):	1:50-400
	Flow cytometry (FCM):	1-3 μ g/1x10 ⁶ cells
	(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. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

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 cholesterol synthesis. 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.

Selected Validation Data

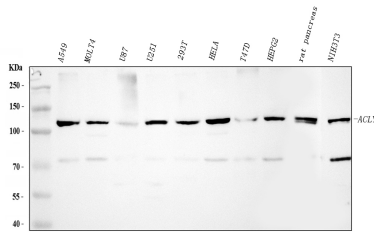


Figure 1. Western blot analysis using anti- ACLY antibody (PB10024). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

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.

Use rabbit anti- ACLY 1:1000, probed with a goat anti-rabbit IgG- HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for ACLY at approximately 125KD. The expected band size for ACLY is at 121KD.

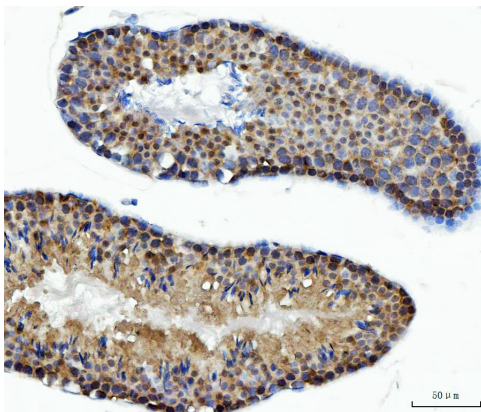


Figure 2. IHC analysis using anti- ACLY antibody (PB10024). detected in paraffin-embedded section of mouse testis tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

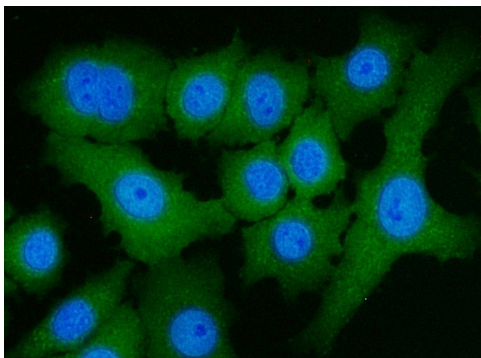


Figure 9. ICC analysis using anti- ACLY antibody (PB10024). was detected in immersion fixed A549 cell line. Cells were stained using the Dylight488-conjugated Anti-rabbit IgG Secondary Antibody (green)(Catalog # BA1127) and counterstained with DAPI (blue).

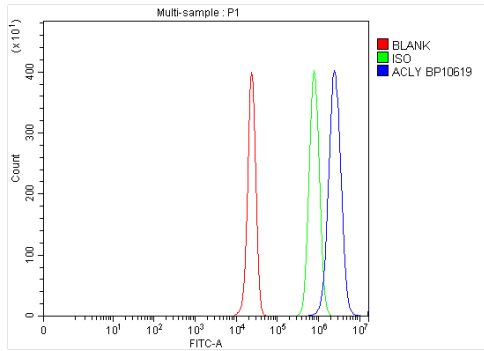


Figure 10. Flow cytometry analysis of HEPG2 cell (1x10⁶) DyLight 488 conjugated goat anti- rabbit IgG(blue) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG DyLight 488. Unlabelled sample (Red line).