

## Basic Information

<b>Product Name</b>	Anti-ACLY Antibody (Clone#512)	
<b>Gene Name</b>	ACLY	
<b>Source</b>	Mouse	
<b>Isotype</b>	IgG2b	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, ICC/IF, FCM	
<b>Contents</b>	500 ug/ml antibody with PBS , 0.02% NaN3 , 1 mg BSA and 50% glycerol.	
<b>Immunogen</b>	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.	
<b>concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	127KD	
<b>Dilution Ratios</b>	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 $\mu\text{g}/1 \times 10^6$ 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 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.

## Selected Validation Data

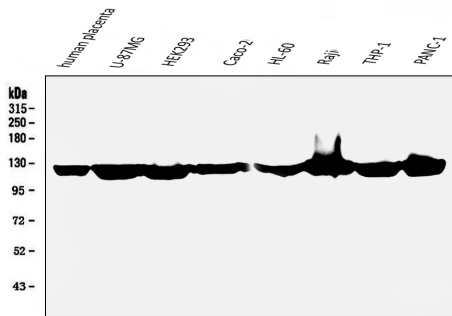


Figure 1. Western blot analysis of anti-ATP citrate lyase antibody (M02372-1). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: Human placenta tissue lysates,  
Lane 2: U-87MG whole cell lysates,  
Lane 3: HEK293 whole cell lysates,  
Lane 4: Caco-2 whole cell lysates,  
Lane 5: HL-60 whole cell lysates,  
Lane 6: Raji whole cell lysates,  
Lane 7: THP-1 whole cell lysates,  
Lane 8: PANC-1 whole cell lysates, Use mouse Anti-ATP citrate lyase 1:1000, probed with a goat anti-mouse IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001). A specific band was detected for ATP citrate lyase at approximately 127KD. The expected band size for ATP citrate lyase is at 121KD.

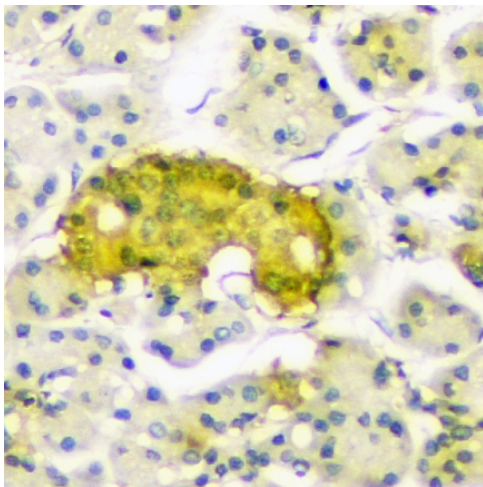


Figure 3. IHC analysis using Anti-ATP citrate lyase antibody (M02372-1) detected in paraffin-embedded section of human pancreatic cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

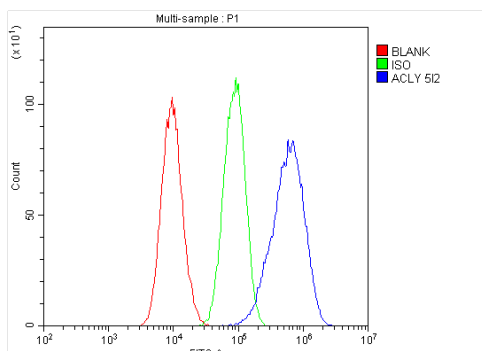


Figure 7. Flow cytometry analysis of A549 cell(1x10<sup>6</sup>) DyLight 488 conjugated goat anti-mouse IgG(blue) was used as secondary antibody. Isotype control antibody (Green line) was mouse IgG DyLight 488. Unlabelled sample (Red line).

Product datasheet

## Anti-ACLY Antibody (Clone#512)

Catalog Number: **M02372-1**

# BOSTER

antibody and ELISA experts

**BOSTER BIOLOGICAL TECHNOLOGY**

Special NO.1, International Enterprise Center,  
2nd Guanshan Road, Wuhan, China

**Web:** [www.boster.com.cn](http://www.boster.com.cn) **Phone:** +86 027-67845390 **Fax:** +86 027-67845390 **Email:** [boster@boster.com.cn](mailto:boster@boster.com.cn)

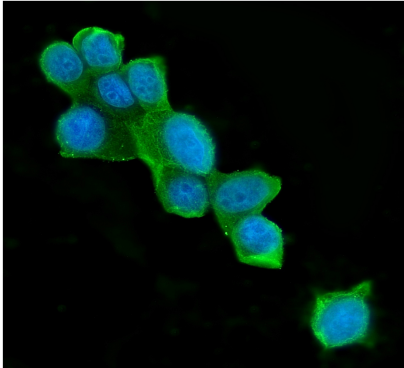


Figure 8. ICC analysis using anti-ATP citrate lyase antibody (M02372-1) was detected in immersion fixed MCF-7 cell line . Cells were stained using the Dylight488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1127) and counterstained with DAPI (blue).