

## Basic Information

<b>Product Name</b>	Anti-ACLY Antibody (Clone#5I2)	
<b>Gene Name</b>	ACLY	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG2b	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, FCM, ICC/IF	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml 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>	121 kDa	
<b>Dilution Ratios</b>	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

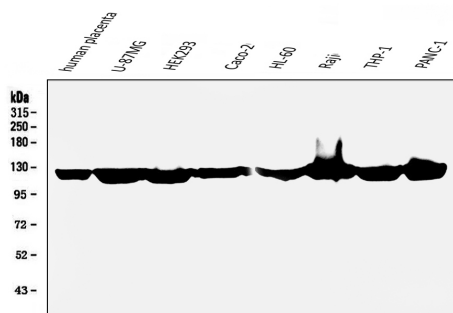
12 months from date of receipt, -20°C as supplied.

## 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.

## Selected Validation Data



Western blot analysis of ACLY using anti-ACLY antibody (M02372-1).

The sample well of each lane was loaded with 30 ug 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.

After electrophoresis, proteins were transferred to a membrane.

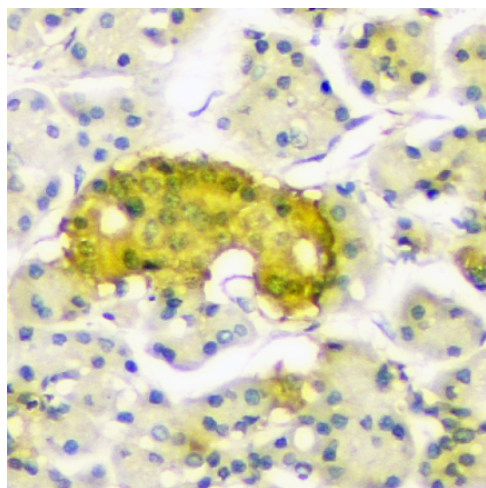
Then the membrane was incubated with mouse anti-ACLY antigen

affinity purified monoclonal antibody (M02372-1) at a dilution of

1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). 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.



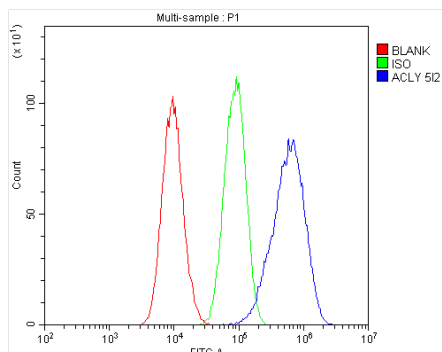
IHC analysis of ACLY using anti-ACLY antibody (M02372-1).

ACLY was detected in a paraffin-embedded section of human

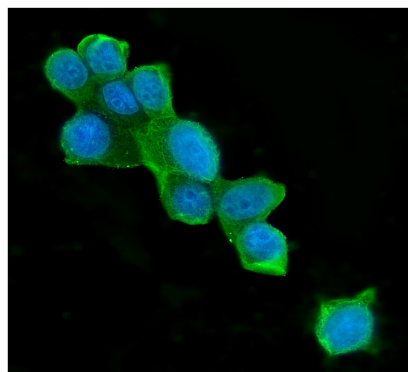
pancreatic cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse

anti-ACLY Antibody (M02372-1) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with

DAB (Catalog # AR1027) as the chromogen.



Flow cytometry analysis of A549 cell(1:100) Fluoro 488 conjugated goat anti-mouse IgG(blue) was used as secondary antibody. Isotype control antibody (Green line) was mouse IgG Fluoro 488. Unlabelled sample (Red line).



ICC/IF analysis of ACLY using anti-ACLY antibody (M02372-1). ACLY was detected in an immunocytochemical section of MCF-7 cells. The section was incubated with mouse anti-ACLY Antibody (M02372-1) at a dilution of 1:100. Fluoro488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).