

Rabbit anti-Human, Rat ATP citrate lyase Polyclonal Antibody | anti-ACLY antibody

Anti-ATP citrate lyase Antibody

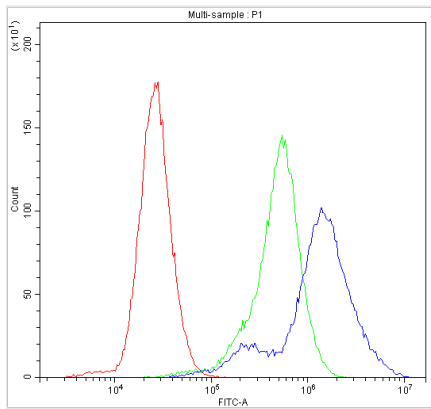
CATALOG # AAA11689	HOST Rabbit	REACTIVITY Human, Rat	APPLICATIONS Western Blot, Immunohistochemistry
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PRODUCT SYNONYMS

ATP citrate lyase; Polyclonal Antibody; Anti-ATP citrate lyase Antibody; ACL; Acly; ATP citrate synthase; ATP-citrate synthase; ATPcitrate synthase; ATPCL; CLATP; P53396; anti-ACLY antibody

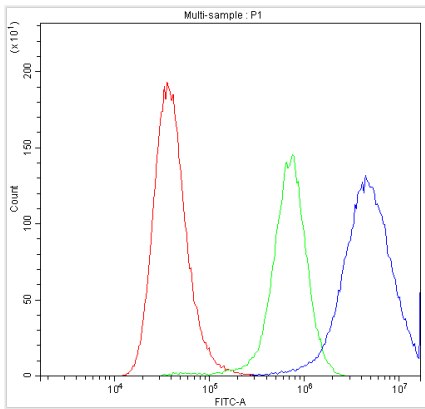
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Sequence Length	1101
Applicable Applications for anti-ACLY antibody	WB (Western Blot), IHC (Immunohistochemistry)
Application Notes	Western Blot: 0.1-0.5ug/ml Immunohistochemistry(IHC) Paraffin: 0.5-1ug/ml
Notes	Tested Species: In-house tested species with positive results. By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections. Other applications have not been tested.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
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.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



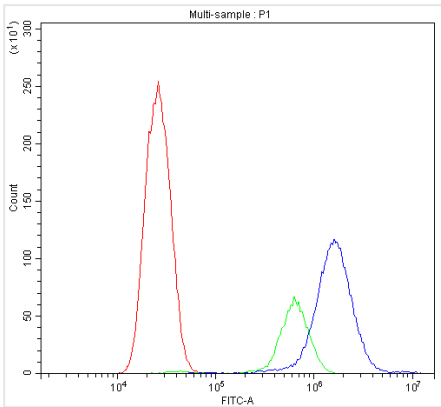
FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of U-87 cells using anti-ATP citrate lyase antibody (AAA11689).Overlay histogram showing U-87 cells stained with AAA11689 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATP citrate lyase Antibody (AAA11689,1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



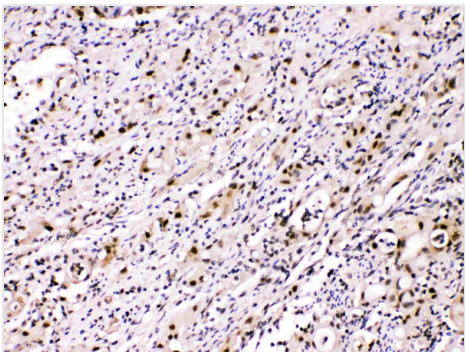
FCM (Flow Cytometry)

Figure 5. Flow Cytometry analysis of A549 cells using anti-ATP citrate lyase antibody (AAA11689).Overlay histogram showing A549 cells stained with AAA11689 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATP citrate lyase Antibody (AAA11689,1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



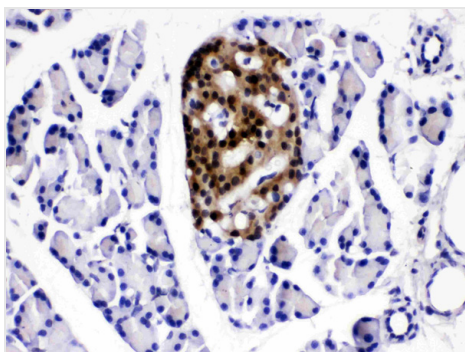
FCM (Flow Cytometry)

Figure 4. Flow Cytometry analysis of U20S cells using anti-ATP citrate lyase antibody (AAA11689).Overlay histogram showing U20S cells stained with AAA11689 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATP citrate lyase Antibody (AAA11689,1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



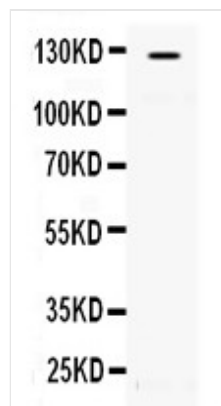
IHC (Immunohistochemistry)

Figure 3. IHC analysis of ATP citrate lyase using anti- ATP citrate lyase antibody (AAA11689). ATP citrate lyase was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti- ATP citrate lyase Antibody (AAA11689) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of ATP citrate lyase using anti- ATP citrate lyase antibody (AAA11689). ATP citrate lyase was detected in paraffin-embedded section of rat pancreas tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti- ATP citrate lyase Antibody (AAA11689) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of ATP citrate lyase using anti- ATP citrate lyase antibody (AAA11689). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: MCF-7 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- ATP citrate lyase antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for ATP citrate lyase at approximately 127KD. The expected band size for ATP citrate lyase is at 127KD.

ADDITIONAL INFORMATION

Related Product Information for anti-ACLY antibody	Rabbit IgG polyclonal antibody for ATP-citrate synthase(ACLY) detection. Background: ATP citrate lyase, aslo 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.
References	1. Fatland BL, Ke J, Anderson MD, Mentzen WI, Cui LW, Allred CC, Johnston JL, Nikolau BJ, Wurtele ES (October 2002). "Molecular characterization of a heteromeric ATP-citrate lyase that generates cytosolic acetyl-coenzyme A in Arabidopsis". <i>Plant Physiol.</i> 130 (2): 740-756. 2. Guay C, Madiraju SR, Aumais A, Joly E, Prentki M (December 2007). "A role for ATP-citrate lyase, malic enzyme, and pyruvate/citrate cycling in glucose-induced insulin secretion". <i>J. Biol. Chem.</i> 282 (49): 35657-35665.

NCBI AND UNIPROT INFORMATION

NCBI GI #	38569421
NCBI GeneID	47
NCBI Accession #	NP_001087.2
NCBI GenBank Nucleotide #	NM_001096.2
UniProt Accession #	P53396 ; Q13037 ; Q9BRL0 ; B4DIM0 ; B4E3P0
Molecular Weight	91,099 Da
NCBI Official Full Name	ATP-citrate synthase isoform 1
NCBI Official Synonym Full Names	ATP citrate lyase
NCBI Official Symbol	ACLY
NCBI Official Synonym Symbols	ACL; ATPCL; CLATP

NCBI Protein Information	ATP-citrate synthase
UniProt Protein Name	ATP-citrate synthase
UniProt Gene Name	ACLY
UniProt Synonym Gene Names	ACL

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/atp-citrate-lyase-antibody-western-blot-immunohistochemistry-elisa/11689>