

ACLY Antibody

Purified Mouse Monoclonal Antibody Catalog # A01784a

Specification

ACLY Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW **Description** WB, IHC, FC, ICC, E <u>P53396</u> Human, Mouse, Rat, Monkey Mouse Monoclonal IgG1 125kDa KDa

ATP citrate lyase is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues. The enzyme is a tetramer (relative molecular weight approximately 440,000) of apparently identical subunits. It catalyzes the formation of acetyl-CoA and oxaloacetate from citrate and CoA with a concomitant hydrolysis of ATP to ADP and phosphate. The product, acetyl-CoA, serves several important biosynthetic pathways, including lipogenesis and cholesterogenesis. In nervous tissue, ATP citrate-lyase may be involved in the biosynthesis of acetylcholine. Two transcript variants encoding distinct isoforms have been identified for this gene.

Immunogen Purified recombinant fragment of human ACLY (AA: 306-502) expressed in E. Coli.

Formulation Purified antibody in PBS with 0.05% sodium azide

ACLY Antibody - Additional Information

Gene ID 47

Other Names ATP-citrate synthase, 2.3.3.8, ATP-citrate (pro-S-)-lyase, ACL, Citrate cleavage enzyme, ACLY

Dilution WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ACLY Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



ACLY Antibody - Protein Information

Name ACLY

Function

Catalyzes the cleavage of citrate into oxaloacetate and acetyl-CoA, the latter serving as common substrate in multiple biochemical reactions in protein, carbohydrate and lipid metabolism.

Cellular Location Cytoplasm, cytosol.

ACLY Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>





Figure 1: Western blot analysis using ACLY mAb against human ACLY recombinant protein. (Expected MW is 46.7 kDa)



Figure 2: Western blot analysis using ACLY mouse mAb against HeLa (1), NIH3T3 (2), C6 (3), COS7 (4), and Raji (5) cell lysate.



Figure 3: Immunofluorescence analysis of HeLa cells using ACLY mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.





Figure 4: Flow cytometric analysis of HeLa cells using ACLY mouse mAb (green) and negative control (purple).



Figure 5: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using ACLY mouse mAb with DAB staining.



Figure 6: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using ACLY mouse mAb with DAB staining.

ACLY Antibody - References

1.J Biol Chem. 2010 Oct 15;285(42):32606-15. 2.Int J Cancer. 2010 May 15;126(10):2282-95.