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ACLY Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1784a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P53396
Reactivity	Human, Mouse, Rat, Monkey
Host	Mouse
Clonality	Monoclonal
Clone Names	5F8D11
Isotype	IgG1
Calculated MW	120839
Description	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

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.

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.

References

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

Images

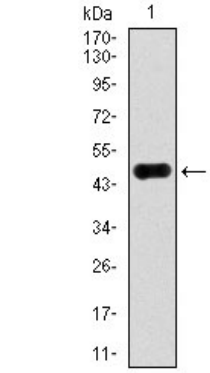


Figure 1: Western blot analysis using ACLY mAb against human ACLY recombinant protein. (Expected MW is 46.7 kDa)

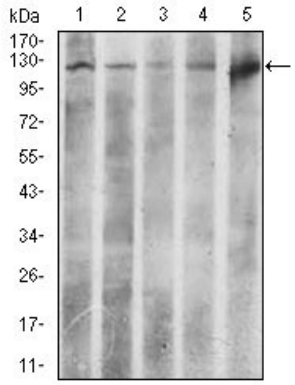


Figure 2: Western blot analysis using ACLY mouse mAb against HeLa (1), NIH3T3 (2), C6 (3), COS7 (4), and Raji (5) cell lysate.

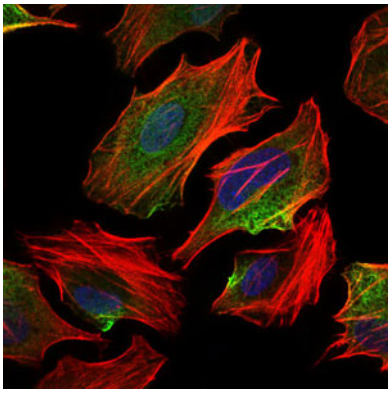
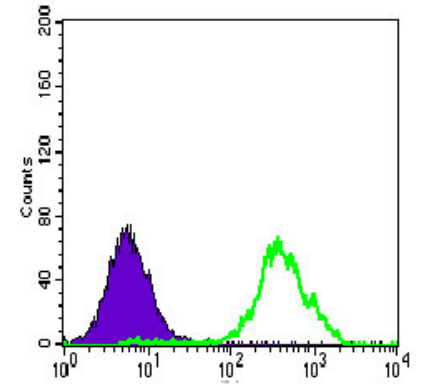


Figure 3: Immunofluorescence analysis of HeLa cells using ACLY mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

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



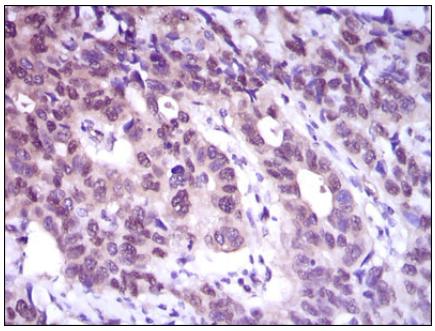


Figure 5: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using ACLY mouse mAb with DAB staining.

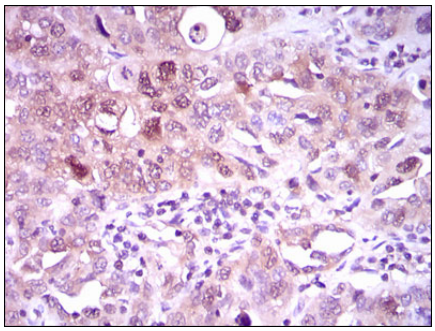


Figure 6: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using ACLY mouse mAb with DAB staining.