ARG42696
anti-ATP Citrate Lyase antibody [5I2]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [5I2] recognizes ATP Citrate Lyase
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	5I2
Isotype	IgG2b
Target Name	ATP Citrate Lyase
Species	Human
Immunogen	Recombinant protein corresponding to M1-I180 of Human ATP Citrate Lyase.
Conjugation	Un-conjugated
Alternate Names	ACL; ATP-citrate synthase; Citrate cleavage enzyme; CLATP; EC 2.3.3.8; pro-S-; ATP-citrate; ATPCL

Application Instructions

Application table

Application	Dilution
FACS	1:150 - 1:500
ICC/IF	1:200 - 1:1000
IHC-P	1:200 - 1:1000
WB	1:500 - 1:2000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Observed Size	~ 120 kDa

Properties

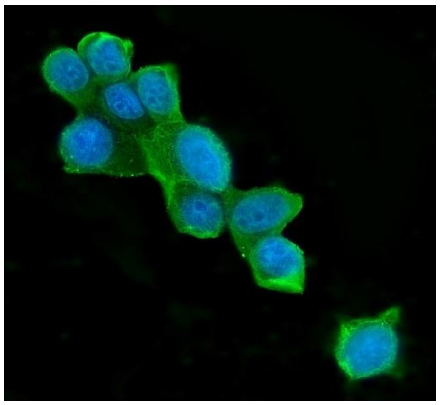
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 4% Trehalose.
Preservative	0.05% Sodium azide
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

	and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

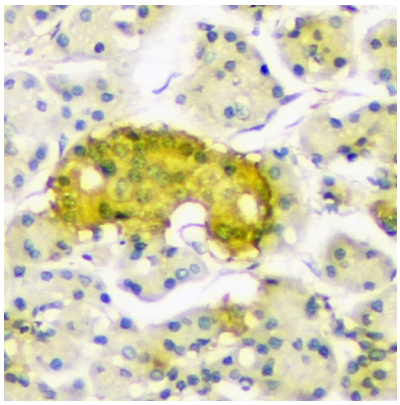
Gene Symbol	ACLY
Gene Full Name	ATP citrate lyase
Background	ATP citrate lyase is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues. The enzyme is a tetramer (relative molecular weight approximately 440,000) of apparently identical subunits. It catalyzes the formation 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. Multiple transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Dec 2014]
Function	Catalyzes the cleavage of citrate into oxaloacetate and acetyl-CoA, the latter serving as common substrate for de novo cholesterol and fatty acid synthesis. [UniProt]
Calculated Mw	121 kDa
PTM	ISGylated. Acetylated at Lys-540, Lys-546 and Lys-554 by KAT2B/PCAF. Acetylation is promoted by glucose and stabilizes the protein, probably by preventing ubiquitination at the same sites. Acetylation promotes de novo lipid synthesis. Deacetylated by SIRT2. Ubiquitinated at Lys-540, Lys-546 and Lys-554 by UBR4, leading to its degradation. Ubiquitination is probably inhibited by acetylation at same site (Probable). [UniProt]
Cellular Localization	Cytoplasm. [UniProt]

Images



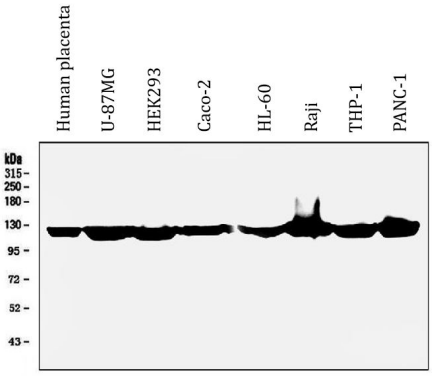
ARG42696 anti-ATP Citrate Lyase antibody [5I2] ICC/IF image

Immunofluorescence: MCF7 cells were blocked with 10% goat serum and then stained with ARG42696 anti-ATP Citrate Lyase antibody [5I2] (green) at 2 µg/ml dilution, overnight at 4°C. DAPI (blue) for nuclear staining.



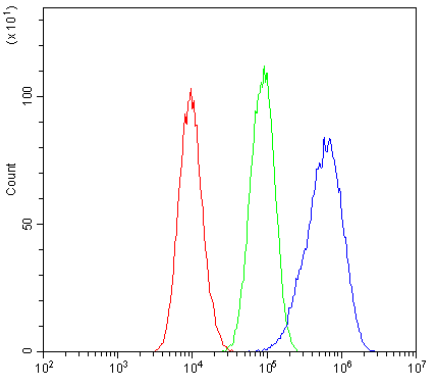
ARG42696 anti-ATP Citrate Lyase antibody [5I2] IHC-P image

Immunohistochemistry: Paraffin-embedded Human pancreatic cancer tissue. Antigen Retrieval: Heat mediation was performed in EDTA buffer (pH 8.0). The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42696 anti-ATP Citrate Lyase antibody [5I2] at 1 µg/ml dilution, overnight at 4°C.



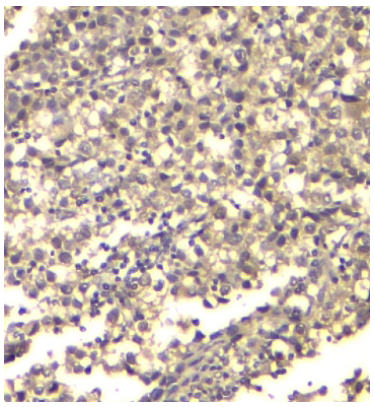
ARG42696 anti-ATP Citrate Lyase antibody [5I2] WB image

Western blot: 50 µg of samples under reducing condition. Human placenta, U-87MG, HEK293, Caco-2, HL-60, Raji, THP-1 and PANC-1 whole cell lysates stained with ARG42696 anti-ATP Citrate Lyase antibody [5I2] at 0.5 µg/ml dilution, overnight at 4°C.



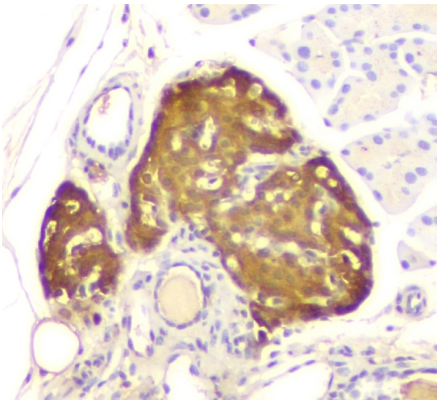
ARG42696 anti-ATP Citrate Lyase antibody [5I2] FACS image

Flow Cytometry: A549 cells were blocked with 10% normal goat serum and then stained with ARG42696 anti-ATP Citrate Lyase antibody [5I2] (blue) at 1 µg/10^6 cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was mouse IgG (1 µg/10^6 cells) used under the same conditions. Unlabelled sample (red) was also used as a control.



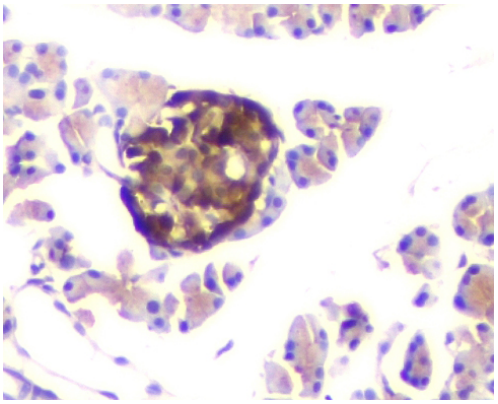
ARG42696 anti-ATP Citrate Lyase antibody [5I2] IHC-P image

Immunohistochemistry: Paraffin-embedded Human testis cancer tissue. Antigen Retrieval: Heat mediation was performed in EDTA buffer (pH 8.0). The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42696 anti-ATP Citrate Lyase antibody [5I2] at 1 µg/ml dilution, overnight at 4°C.



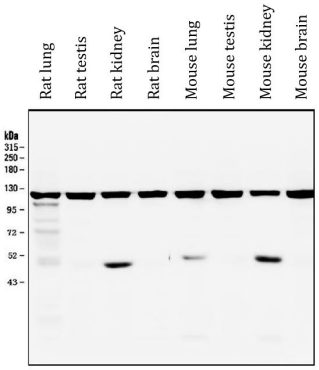
ARG42696 anti-ATP Citrate Lyase antibody [5I2] IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse pancreas tissue. Antigen Retrieval: Heat mediation was performed in EDTA buffer (pH 8.0). The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42696 anti-ATP Citrate Lyase antibody [5I2] at 1 µg/ml dilution, overnight at 4°C.



ARG42696 anti-ATP Citrate Lyase antibody [5I2] IHC-P image

Immunohistochemistry: Paraffin-embedded Rat pancreas tissue. Antigen Retrieval: Heat mediation was performed in EDTA buffer (pH 8.0). The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42696 anti-ATP Citrate Lyase antibody [5I2] at 1 µg/ml dilution, overnight at 4°C.



ARG42696 anti-ATP Citrate Lyase antibody [5I2] WB image

Western blot: 50 µg of samples under reducing condition. Rat lung, Rat testis, Rat kidney, Rat brain, Mouse lung, Mouse testis, Mouse kidney and Mouse brain lysates stained with ARG42696 anti-ATP Citrate Lyase antibody [5I2] at 0.5 µg/ml dilution, overnight at 4°C.