

ARG42712 anti-ATP Citrate Lyase phospho (Thr447 / Ser451) antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ATP Citrate Lyase phospho (Thr447 / Ser451)
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATP Citrate Lyase
Species	Human
Immunogen	Phosphospecific peptide around Thr447 / Ser451 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
	ICC/IF	1:50
	IP	1:20
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	50 mM Tris-Glycine (pH 7.4), 150 mM NaCl, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide
Stabilizer	40% Glycerol and 0.05% BSA
Concentration	Batch dependent
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. 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 cholesterologenesis. 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

