ARG58251
anti-ATP Citrate Lyase phospho (Ser455) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ATP Citrate Lyase phospho (Ser455)
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATP Citrate Lyase
Species	Human
Immunogen	Phospho specific peptide around Ser455 of Human ATP Citrate Lyase (NP_001087.2).
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
IHC-P	1:50 - 1:100
IP	1:50 - 1:100
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.
Positive Control	NIH/3T3 + insulin
Observed Size	120 kDa

Properties

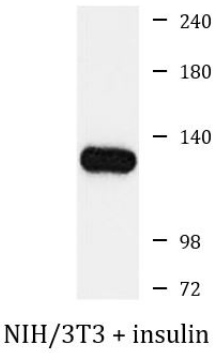
Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. 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

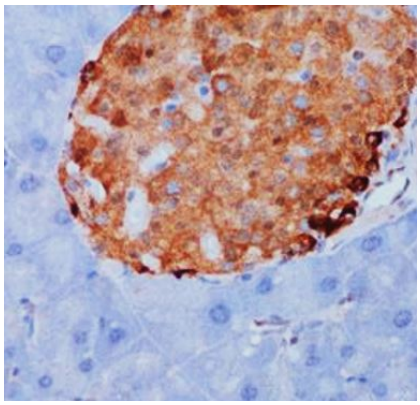
Gene Symbol	ACLY
Gene Full Name	ATP citrate lyase
Background	ATP citrate lyase is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues. The enzyme is a tetramer (relative molecular weight approximately 440,000) of apparently identical subunits. It catalyzes the formation 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 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	ATP citrate-lyase is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues. Has a central role in de novo lipid synthesis. In nervous tissue it may be involved in the biosynthesis of acetylcholine. [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



ARG58251 anti-ATP Citrate Lyase phospho (Ser455) antibody WB image

Western blot: 25 µg of NIH/3T3 cells treated by Insulin (100 nM) for 10 min after serum-starvation overnight. The blot was stained with ARG58251 anti-ATP Citrate Lyase phospho (Ser455) antibody at 1:2000 dilution.



ARG58251 anti-ATP Citrate Lyase phospho (Ser455) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse pancreas tissue stained with ARG58251 anti-ATP Citrate Lyase phospho (Ser455) antibody at 1:100 dilution.

ARG58251 anti-ATP Citrate Lyase phospho (Ser455) antibody IP image

Immunoprecipitation: NIH/3T3 cells were treated by Insulin (100 nM) at 37°C for 10 minutes after serum-starvation overnight. 200 µg extracts of NIH/3T3 cells were immunoprecipitated and stained with ARG58251 anti-ATP Citrate Lyase phospho (Ser455) antibody at 1:1000 dilution.