

Product datasheet

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ARG42712 Package: 100 µl store at: -20°C 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 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



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

Western blot: K562 cell lysate stained with ARG42712 anti-ATP Citrate Lyase phospho (Thr447 / Ser451) antibody at 1:1000 dilution.