

Human ACLY / acly / ATP citrate lyase Protein (His Tag)

Catalog Number: 11769-H07B



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

ACL, ATPCL, CLATP

Protein Construction:

A DNA sequence encoding the human ACLY (P53396) (Met 1-Met 1101) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human ACLY consists of 1120 amino acids and has a calculated molecular mass of 123 kDa. It migrates as an approximately 110 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0, 10% gly

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

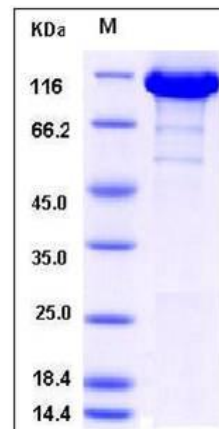
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

ATP citrate lyase (Acly or Acl) is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues. The enzyme is composed of two subunits in green plants and is composed of two polymer chains which are polypeptides in human. ATP citrate lyase is the primary cytoplasmic enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues and is also responsible for catalyzing the conversion of citrate and CoA into acetyl-CoA and oxaloacetate, along with the hydrolysis of ATP. A definitive role for ATP citrate lyase in tumorigenesis has emerged from ATP citrate lyase RNAi and chemical inhibitor studies, showing that ATP citrate lyase inhibition limits tumor cell proliferation and survival and induces differentiation in vitro. In vivo, it reduces tumor growth leading to a cytostatic effect and induces differentiation.

References

1. Kim W. et al., 2006, J Bacteriol. 188 (18): 6544-52.
2. Ki SW. et al., 2000, J Biol Chem. 275 (50): 39231-6.
3. Schneider K. et al., 2000, Biochemistry. 39 (31): 9438-50.