Creative Enzymes®

Prokaryotic Succinyl-CoA synthetase, Recombinant

Cat. No. NATE-0916

Lot. No. (See product label)

Introduction

Description In enzymology, a succinate-CoA ligase (ADP-forming) (EC 6.2.1.5) is an enzyme that catalyzes the chemical reaction: ATP + succinate + CoA ↔ ADP + phosphate + succinyl-CoA. The 3 substrates of this enzyme are ATP, succinate, and CoA, whereas its 3 products are ADP, phosphate, and succinyl-CoA. This enzyme belongs to the family of ligases, specifically those forming carbon-sulfur bonds as acid-thiol ligases. This enzyme participates in 4 metabolic pathways: Citric acid cycle, propanoate metabolism, c5-branched dibasic acid metabolism, and reductive carboxylate cycle (CO2 fixation).

Synonyms CoA ligase (ADP-forming); succinyl-CoA synthetase (ADP-forming); succinic thiokinase; succinate thiokinase; succinyl-CoA synthetase; succinyl coenzyme A synthetase (adenosine diphosphate-forming); succinyl coenzyme A synthetase; A-STK (adenin nucleotide-linked succinate thiokinase); STK; A-SCS; succinate-CoA ligase (ADP-forming); EC 6.2.1.5

Product Information

Source Microorganism

Form Liquid

EC Number EC 6.2.1.5

CAS No. 9080-33-5

Molecular Weight α-subunit: ~31kD; β-subunit: ~41kD

Activity ~ 13 U/mg protein

Unit Definition One Unit is defined as the amount of enzyme required to release one μmole of succinyl CoA from succinic acid per minute in the presence of NADH and Coenzyme A in Glycylglycine buffer at pH 8.4 and 25°C.

Storage and Shipping Information

Storage 4°C