Creative Enzymes®

pyruvate synthase

Cat. No. EXWM-1223

Lot. No. (See product label)

Introduction

Description	Contains thiamine diphosphate and [4Fe-4S] clusters. The enzyme also decarboxylates 2-oxobutyrate with lower efficiency, but shows no activity with 2-oxoglutarate. This enzyme is a member of the 2-oxoacid oxidoreductases, a family of enzymes that oxidatively decarboxylate different 2-oxoacids to form their CoA derivatives, and are differentiated based on their substrate specificity. For examples of other members of this family, see EC 1.2.7.3, 2-oxoglutarate synthase and EC 1.2.7.7, 3-methyl-2-oxobutanoate dehydrogenase (ferredoxin).
Synonyms	pyruvate oxidoreductase; pyruvate synthetase; pyruvate:ferredoxin oxidoreductase; pyruvic-ferredoxin oxidoreductase; 2-oxobutyrate synthase; α-ketobutyrate-ferredoxin oxidoreductase; 2-ketobutyrate synthase; α-ketobutyrate synthase; 2-oxobutyrate-ferredoxin oxidoreductase; 2-oxobutanoate:ferredoxin 2-oxidoreductase (CoA-propionylating); 2-oxobutanoate:ferredoxin 2-oxidoreductase (CoA-propanoylating)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.2.7.1
CAS No.	9082-51-3
Reaction	pyruvate + CoA + 2 oxidized ferredoxin = acetyl-CoA + CO2 + 2 reduced ferredoxin + 2 H+
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.