

## 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;  $\alpha$ -ketobutyrate-ferredoxin oxidoreductase; 2-ketobutyrate synthase;  $\alpha$ -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 + CO<sub>2</sub> + 2 reduced ferredoxin + 2 H<sup>+</sup>

#### 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 °C for short term. For long term storage, store it at -20 °C~-80 °C.