Creative Enzymes®

Native Baker's yeast (S. cerevisiae) Pyruvate Decarboxylase

Cat. No. NATE-0510

Lot. No. (See product label)

Introduction

Description Pyruvate decarboxylase (PDC) is a homotetrameric enzyme that catalyses the decarboxylation of pyruvic acid to acetaldehyde and carbon dioxide in the cytoplasm. Pyruvate decarboxylase depends on cofactors thiamine pyrophosphate (TPP) and magnesium. PDC contains a β-α-β structure, yielding parallel β-sheets.

Applications Pyruvate decarboxylase (PDC) is used to study residues involved in thiamine pyrophosphate (TPP) binding. It is used to study the regulation of fermentation pathways in plant species.

Synonyms Pyruvate decarboxylase; EC 4.1.1.1; α-carboxylase (ambiguous); pyruvic decarboxylase; α-ketoacid carboxylase; 2-oxo-acid carboxy-lyase; 9001-04-1; 2-Oxo-acid carboxy-lyase; PDC

Product Information

Source Baker's yeast (S. cerevisiae)

Form ammonium sulfate suspension; Suspension in 3.2 M (NH4)2SO4 pH 6.5, stabilized with 5% glycerol, 5 mM potassium phosphate, 1 mM magnesium acetate, 0.5 mM EDTA, and 25 µM c ocarboxylase.

EC Number EC 4.1.1.1

CAS No. 9001-04-1

Activity 5.0-20.0 units/mg protein (biuret)

Unit Definition One unit will convert 1.0 µmole of pyruvate to acetaldehyde per min at pH 6.0 at 25°C.

Storage and Shipping Information

Storage 2-8°C