Creative Enzymes®

phosphonopyruvate decarboxylase

Cat. No. EXWM-4831

Lot. No. (See product label)

Introduction

Description The enzyme catalyses a step in the biosynthetic pathway of 2-aminoethylphosphonate, a component of the capsular polysaccharide complex of Bacteroides fragilis. Requires thiamine diphosphate and Mg2+ as cofactors. The enzyme is activated by the divalent cations Mg2+, Ca2+ and Mn2+. Pyruvate and sulfopyruvate can also act as substrates, but more slowly. This enzyme drives the reaction catalysed by EC 5.4.2.9, phosphoenolpyruvate mutase, in the thermodynamically unfavourable direction of 3-phosphonopyruvate formation. It is the initial step in all of the major biosynthetic pathways of phosphonate natural products.

Synonyms 3-phosphonopyruvate carboxy-lyase

Product Information

Form Liquid or lyophilized powder

EC Number EC 4.1.1.82

CAS No. 151662-34-9

Reaction 3-phosphonopyruvate = 2-phosphonoacetaldehyde + CO2

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 ℃.