

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 Mg^{2+} as cofactors. The enzyme is activated by the divalent cations Mg^{2+} , Ca^{2+} and Mn^{2+} . 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 + CO_2

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.