

## Native Streptococcus faecalis L-Tyrosine Decarboxylase Apoenzyme

Cat. No. NATE-0420

Lot. No. (See product label)

### Introduction

#### Description

In enzymology, a tyrosine decarboxylase (EC 4.1.1.25) is an enzyme that catalyzes the chemical reaction: L-tyrosine  $\rightleftharpoons$  tyramine + CO<sub>2</sub>. Hence, this enzyme has one substrate, L-tyrosine, and two products, tyramine and carbon dioxide. This enzyme belongs to the family of lyases, specifically the carboxy-lyases, which cleave carbon-carbon bonds. This enzyme participates in tyrosine metabolism and alkaloid biosynthesis. It employs one cofactor, pyridoxal phosphate.

#### Applications

L-Tyrosine decarboxylase apoenzyme from Streptococcus faecalis has been used in a study to purify and characterize tyrosine decarboxylase and aromatic-L-amino-acid decarboxylase. L-Tyrosine decarboxylase apoenzyme from Streptococcus faecalis has also been used in a study to investigate the stereospecificity of sodium borohydride reduction of tyrosine decarboxylase.

#### Synonyms

tyrosine decarboxylase; EC 4.1.1.25; L-tyrosine decarboxylase; L(-)-tyrosine apodecarboxylase; L-tyrosine carboxy-lyase; 9002-09-9

### Product Information

#### Source

Streptococcus faecalis

#### EC Number

EC 4.1.1.25

#### CAS No.

9002-09-9

#### Activity

<0.005 unit/mg solid (without pyridoxal 5-phosphate), > 0.05 unit/mg solid (with excess pyridoxal 5-phosphate)

#### Unit Definition

One unit will liberate 1.0  $\mu$ mole of CO<sub>2</sub> from L-tyrosine per min at pH 5.5 at 37°C.

### Storage and Shipping Information

#### Storage

-20°C