

## Native Bacillus sp. Uricase

Cat. No. DIA-276

Lot. No. (See product label)

### Introduction

#### Description

The enzyme urate oxidase (UO), or uricase or factor-independent urate hydroxylase, absent in humans, catalyzes the oxidation of uric acid to 5-hydroxyisourate:  $\text{Uric acid} + \text{O}_2 + \text{H}_2\text{O} \rightarrow 5\text{-hydroxyisourate} + \text{H}_2\text{O}_2 \rightarrow \text{allantoin} + \text{CO}_2$

#### Applications

This enzyme is useful for enzymatic determination of uric acid in clinical analysis.

#### Synonyms

urate oxidase; uric acid oxidase; uricase; uricase; urate: oxygen oxidoreductase; EC 1.7.3.3; uricase II

### Product Information

#### Source

Bacillus sp.

#### Appearance

White amorphous powder, lyophilized

#### Molecular Weight

approx.150,000

#### Activity

Gradell 1.5U/mg-solid or more

#### Contaminants

Catalase <1.0%

#### Isoelectric point

4.7

#### pH Stability

pH 6.0-9.5 (25°C, 20hr)

#### Optimum pH

8.5

#### Thermal stability

below 60°C (pH 8.0, 10min)

#### Optimum temperature

45°C

#### Michaelis Constant

$1.36 \times 10^{-5} \text{M}$  (Uric acid)

#### Structure

4 subunits per molecule

#### Inhibitors

$\text{Ag}^+$ ,  $\text{Hg}^{++}$

#### Stabilizers

Borate, EDTA, nonionic detergents

#### Unit Definition

One unit causes the oxidation of one micromole of uric acid per minute under the conditions described below.

### Storage and Shipping Information

#### Stability

Stable at -20°C for at least 6 months