

Native Candida sp. Uricase

Cat. No. DIA-175

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

Candida sp.

Appearance

White amorphous powder, lyophilized

Form

Freeze dried powder

EC Number

EC 1.7.3.3

CAS No.

9002-12-4

Molecular Weight

approx. 120 kDa

Activity

Gradell 4.0U/mg-solid or more (containing approx.20% of stabilizers)

Contaminants

Catalase < 1.0%

Isoelectric point

5.4

pH Stability

pH 7.0-11.0 (25°C, 20hr)

Optimum pH

8.5

Thermal stability

below 50°C (pH 8.5, 10min)

Optimum temperature

40°C

Michaelis Constant

$2.5 \times 10^{-5}\text{M}$ (Uric acid)

Structure

4 subunits per molecule (Reactive SH groups are present in the enzyme molecule)

Inhibitors

Heavy metal ions, cyanide, various urate analogs

Stabilizers

Borate, EDTA, nonionic detergents

Storage and Shipping Information

Stability

Stable at -20°C for at least one year