

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 Ag^+ , 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