Creative Enzymes®

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: Uric acid + O2 + H2O → 5-hydroxyisourate + H2O2 → allantoin + CO2
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	GradeⅡ 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	1.36×10^{-5}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