

## Uricase from *E. coli*, Recombinant

Cat. No. DIA-415

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 + O<sub>2</sub> + H<sub>2</sub>O → 5-hydroxyisourate + H<sub>2</sub>O<sub>2</sub> → allantoin + CO<sub>2</sub>

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

### Product Information

**Species** *E. coli*

**Source** *E. coli*

**Appearance** Light brownish lyophilizate

**EC Number** EC 1.7.3.3

**CAS No.** 9002-12-4

**Molecular Weight** ca. 90 kDa

**Activity** > 4 U/mg lyophilizate

**Contaminants** catalase < 1.0%

**pH Stability** 7.0-11.0

**Optimum pH** 8.5

**Thermal stability** below 55°C

**Optimum temperature** 45°C

**Michaelis Constant** 1.1 x 10<sup>-5</sup> M (uric acid)

**Structure** 2 subunits of 35 kDa (SDS-PAGE)

**Inhibitors** Hg<sup>2+</sup>, Ag<sup>+</sup>

**Stabilizers** Citrate, sucrose

**Unit Definition** One unit (U) is defined as the amount of enzyme which oxidizes 1 μmol of uric acid per min at 25°C and pH 8.5.

### Storage and Shipping Information

**Storage** at -20°C

**Stability** Stability (liquid form) stable at 37°C for at least ten days Stability (powder form) stable at 30°C at least

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Stability (liquid form) stable at 37 °C for at least ten days Stability (powder form) stable at 30 °C at least three weeks