

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: $\text{Uric acid} + \text{O}_2 + \text{H}_2\text{O} \rightarrow 5\text{-hydroxyisourate} + \text{H}_2\text{O}_2 \rightarrow \text{allantoin} + \text{CO}_2$

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 1.1×10^{-5} M (uric acid)

Structure 2 subunits of 35 kDa (SDS-PAGE)

Inhibitors Hg^{2+} , Ag^{+}

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

Stability

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