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## Product Data Sheet

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Product Name: Uricase  
 Cat. No.: GP22395  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Urate Oxidase; Uricase; Urate Oxygen; Oxidoreductase; UOX; UO; EC 1.7.3.		
Amino Acid Sequence	msavkaaryg kdnrvykvh kdektgvqtv yemtvcvlle geietsytka dnsvivatds ikntiyitak qnpvtppefl gsilgthfie kynhihaahv nivchrwtrm didgkphphs firdseekrn vqvdivvegkg idiksslsgl tvlkstnsqf wgflrdeyrt lketwdrils tdvdatwqwk nfsglqevrs hvpkfdatwa tarevtlktf aednsasvqa tmykmaeqil arqqlietve yslpknkhyfe idlshwkgllq ntgknaevfa pqsdpnglik ctvgrsslks kl.		
Solubility	We highly recommend reconstituting the lyophilized Uricase in 50mM borate buffer containing 0.001% Triton X-100 and 1.0mM EDTA, pH 8.5 for activity assay.		
Formulation	Each 1.5mg Uricase contains 5mg sucrose, 25mg glycine, 0.1mg Tween-80, 13.6 mg Na <sub>2</sub> HPO <sub>4</sub> *12H <sub>2</sub> O and 0.33 mg NaH <sub>2</sub> PO <sub>4</sub> *2H <sub>2</sub> O.		

### Introduction

Urate oxidase catalyzes the enzymatic oxidation (degrades) of uric acid into allantoin, an inactive and soluble metabolite, which is 5 to 10 fold more soluble than uric acid. Urate oxidase is an enzyme of the purine breakdown pathway that catalyses the oxidation of uric acid to allantoin. Uricase is present in numerous diverse organisms, but not in higher primates including human. Hyperuricaemia is most commonly associated with gout and also occurs in mammals with malignancy, especially those with lymphoid malignancies due to rapid cell turnover and an increased rate of purine metabolism. Uricase is effective in the prevention and treatment of hyperuricaemia in mammals with malignancy and in those who have undergone transplantation. It appears to act rapidly, safely and induces a more dramatic decrease in plasma levels of uric acid.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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### Biological Activity

The specific activity was found to be 10U/mg. One Unit oxidizes one micromole of uric acid per minute at 25°C , at pH 8.5.

### Stability

Lyophilized Urate Oxidase although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution Uricase should be stored at 4°C between 2-7 days and for future use below -18°C . Please prevent freeze-thaw cycles.

### Background

Urate Oxidase Recombinant produced in E.Coli is a tetrameric, non-glycosylated polypeptide chain containing 302 amino acids, having a molecular formula of C<sub>1523</sub>H<sub>2383</sub>N<sub>417</sub>O<sub>462</sub>S<sub>7</sub> and a molecular mass of 34,247 Dalton. The cDNA coding for urate-oxidase was cloned from a strain of *Aspergillus flavus* . The monomer protein has no intra- or inter-disulfide bridges.

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