



Product Datasheet

Product Name	Urate Oxidase Recombinant
Cata No	CB500489
Source	<i>Escherichia Coli.</i>
Synonyms	Urate Oxidase, Uricase, Urate Oxygen, Oxidoreductase, UOX, UO, EC 1.7.3.3

Description

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. Urate Oxidase Human Recombinant produced in E.Coli is a tetrameric, non-glycosylated polypeptide chain containing 302 amino acids, having a molecular formula of $C_{1523}H_{2383}N_{417}O_{462}S_7$ 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.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

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.

Purity

Greater than 96.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

Each 1.5mg Uricase contains 5mg sucrose, 25mg glycine, 0.1mg Tween-80, 13.6 mg $Na_2HPO_4 \cdot 12H_2O$ and 0.33 mg $NaH_2PO_4 \cdot 2H_2O$.

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.

Sequence

msavkaaryg kdnrvvykvh kdektgvqtv yemtvcvlle
geietsytka dnsvivatds ikntiyitak qnpvtppelf gsilgthfie
kynhihaahv nivchrwtrm didgkphphs firdseekrn
vqvdivvegkg idiksslsgl tvlkstnsqf wgflrdeytf lketwdrils
tdvdatwqwk nfgslqevrs hvpkfdatwa tarevtlktf
aednsasvqa tmykmaeqil arqqlietve yslpknkhyfe
idlswhkgqlq ntgknaevfa pqsdpnglik ctvgrsslks kl

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