

32-2925: Uricase Recombinant Protein

Alternative Name : Urate Oxidase,Uricase,Urate Oxygen,Oxidoreductase,UOX,UO,EC 1.7.3.

Description

Source : Escherichia Coli. Urate Oxidase Recombinant produced in E.Coli is a tetrameric, non-glycosylated polypeptide chain containing 302 amino acids, having a molecular formula of C₁₅₂₃H₂₃₈₃N₄₁₇O₄₆₂S₇ 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. 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.

Product Info

Amount : 0.5 mg

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

Content : Each 1.5mg Uricase contains 5mg sucrose, 25mg glycine, 0.1mg Tween-80, 13.6 mg Na₂HPO₄*12H₂O and 0.33 mg NaH₂PO₄*2H₂O.

Storage condition : 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.

Amino Acid : msavkaaryg kdnrvvykvh kdektgvqtv yemtcvllle geietsytka dnsvivatds ikntiyitak qnpvtppef gsilgthfie kynhihaahv nivchrwtrm didgkphphs firdseekrn vqvdvvegkg idiksslsigl tvlksstnsqf wgflrdeytt lketwdrils tdvdatwqwk nfsglqevrs hvpkfdatwa tarevtlktf aednsasvqa tmykmaeqil arqqlietve yslpnkhyfe idlshkglq ntgknaevfa pqsdpnglik ctvgrsslks kl.

Application Note

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. 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.

