

## Urate Oxidase - Purified

**Catalog No.:** AR10156PU-L

**Quantity:** 1 mg

**Background:** 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.

**Uniprot ID:** [Q00511](#)

**NCBI:** [5059](#)

**Source:** E. coli

**Format:** **State:** Sterile Filtered White lyophilized (freeze-dried) powder  
**Purity:** >96.0% as determined by both by RP-HPLC and SDS-PAGE analysis.  
**Buffer System:** Each 1.5 mg Uricase contains 5 mg Sucrose, 25 mg Glycine, 0.1 mg 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  
**Reconstitution:** Restore in 50mM Borate buffer containing 0.001% Triton X-100 and 1.0mM EDTA, pH 8.5 for activity assay.

**Description:** Recombinant Human Urate Oxidase 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.

**AA Sequence:**

msavkaaryg kdnrvvykvh kdektgvqvt yemtvcvlle geietsytka dnsvivatds ikntiyitak  
qnpvtppelf gsilgthfie kynhihaahv nivchrwtrm didgkphphs firdseekrn vqvdvvegk  
idiksslsgl tvlkstnsqf wgflrdeytt lketwdrils tdvdatwqwk nfgslqevrs hvpkfdatwa  
tarevtlktf aednsasvqa tmykmaeqil arqqlietve yslpknkhyfe idlshwhkglq ntgknaevfa  
pqsdpnglik ctvgrsslks kl

**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.

**Storage:**

Lyophilized Urate Oxidase although stable at RT for 3 weeks, should be stored desiccated below -18°C.

Upon reconstitution store the antibody undiluted at 2-8°C for 2-7 days or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.