

Uricase from *E. coli*, Recombinant

Product Information

Cat#	DIA-415
Similar	UO
Source	<i>E. coli</i>
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: Uric acid + O ₂ + H ₂ O → 5-hydroxyisourate + H ₂ O ₂ → allantoin + CO ₂
Activity	> 4 U/mg lyophilizate
CAS No.	9002-12-4
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	at -20°C
Synonyms	urate oxidase; uric acid oxidase; uricase; uricase; urate: oxygen oxidoreductase; EC 1.7.3.3; uricase II
Enzyme Commission Number	EC 1.7.3.3
pH Stability	7.0–11.0
Michaelis Constant	1.1 x 10 ⁻⁵ M (uric acid)
Optimum pH	8.5
Optimum temperature	45°C
Thermal stability	below 55°C
Stability	Stability (liquid form) stable at 37°C for at least ten days Stability (powder form) stable at 30°C at least three weeks

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Stabilizers	Citrate, sucrose
Inhibitors	Hg ²⁺ , Ag ⁺
Contaminants	catalase < 1.0%
Abbr	UO, Recombinant (<i>E. coli</i>)
Alias	UO
Appearance	Light brownish lyophilizate
Structure	2 subunits of 35 kDa (SDS-PAGE)
Molecular Weight	ca. 90 kDa
Species	<i>E. coli</i>