Creative Enzymes®

Native Acremonium sp. Ascorbate Oxidase

Cat. No. NATE-0864

Lot. No. (See product label)

Introduction

Description	In enzymology, a L-ascorbate oxidase (EC 1.10.3.3) is an enzyme that catalyzes the chemical reaction:2 L-ascorbate + O2↔ 2 dehydroascorbate + 2 H2O. Thus, the two substRates of this enzyme are L-ascorbate and O2, whereas its two products are dehydroascorbate and H2O. This enzyme belongs to the family of oxidoreductases, specifically those acting on diphenols and related substances as donor with oxygen as acceptor. This enzyme participates in ascorbate metabolism. It employs one cofactor, copper.
Applications	This enzyme is useful for avoidance from interference of ascorbic acid on diagnostic assay such as blood, uric acid, TG, TC and creatinine.
Synonyms	ascorbase; ascorbic acid oxidase; ascorbate oxidase; ascorbic oxidase; ascorbate dehydrogenase; L-ascorbic acid oxidase; AAO; L-ascorbate:O2 oxidoreductase; AA oxidase; EC 1.10.3.3; L-ascorbate oxidase

Product Information

Source	Acremonium sp.
Appearance	Light blue amorphous powder, lyophilized
Form	Freeze dried powder
EC Number	EC 1.10.3.3
CAS No.	9029-44-1
Molecular Weight	80 kDa（gel filtration）
Activity	> 200 U/mg
Contaminants	Catalase < 0.02%; ATPase < 0.001%
Isoelectric point	4
pH Stability	6.0–10.0（30°C, 24 hr）
Optimum pH	4.0–4.5
Thermal stability	Stable at 50°C and below (pH 7.0, 10 mins)
Michaelis Constant	Ascorbic acid（pH 7.0） 1.0 × 10-4 M Ascorbic acid（pH 4.0） 3.8 × 10-4 M
Stabilizers	BSA, Mannitol

Storage and Shipping Information

Storage	Storage at −20°C in the presence of a desiccant is recommended.