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.