

Native Microorganism Sarcosine Oxidase

Cat. No. DIA-171

Lot. No. (See product label)

Introduction

Description

Sarcosine oxidase (SAO) is an enzyme that catalyzes the oxidative demethylation of sarcosine to yield glycine, H₂O₂, 5, 10-CH₂-tetrahydrofolate in a reaction requiring H₄-tetrahydrofolate and oxygen. sarcosine + H₂O + O₂ = glycine + formaldehyde + H₂O₂.

Applications

This enzyme is useful for enzymatic determination of creatinine, creatine, and sarcosine when coupling with creatinine amidohydrolase and creatine amidinohydrolase.-341 is newer type of sarosine oxidase, with improved stability in antimicrobial reagent.

Synonyms

Sarcosine Oxidase; EC 1.5.3.1; SAO

Product Information

Source

Microorganism

Appearance

Yellowish amorphous powder, lyophilized

Form

Freeze dried powder

EC Number

EC 1.5.3.1

CAS No.

9029-22-5

Molecular Weight

approx. 65 kDa (by gel filtration)

Activity

GradeIII 8.0U/mg-solid or more

Contaminants

Catalase < 1.0%

Isoelectric point

4.9±0.1

pH Stability

pH 6.5-9.0 (25°C, 24hr)

Optimum pH

7.0-8.5

Thermal stability

below 55°C (pH 7.5, 10min)

Optimum temperature

40-50°C

Michaelis Constant

2.8×10⁻³M (Sarcosine)

Inhibitors

Cu⁺⁺, Ag⁺, Hg⁺⁺, p-chloromercuribenzoate, N-ethylmaleimide, SDS

Stabilizers

Potassium gluconate

Function

Amine oxidase activity; oxidoreductase activity; calcium ion binding; copper ion binding; quinone binding.

Storage and Shipping Information

Stability

Stable at -20°C for at least one year