

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