Creative Enzymes®

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^{-3}M (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