

Sarcosine Oxidase from E. coli, Recombinant

Product Information

Cat#	DIA-414
Abbr	SAO, Recombinant (E. coli)
Alias	SAO
Similar	SAO
Species	E. coli
Source	E. coli
Description	Sarcosine oxidase (SAO) is an enzyme that catalyzes the oxidative demethylation of sarcosine to yield glycine, H ₂ O ₂ , 5, 10-CH ₂ -tetrahydrofolate in a reaction requiring H ₄ -tetrahydrofolate and oxygen. sarcosine + H ₂ O + O ₂ = glycine + formaldehyde + H ₂ O ₂ .
Appearance	Yellow lyophilizate
Enzyme Commission Number	EC 1.5.3.1
Activity	> 10 U/mg
Contaminants	catalase < 0.5% glucose oxidase < 1.0 x 10 ⁻⁵ %
Molecular Weight	ca. 49 kDa
Isoelectric point	5.3
pH Stability	6.5–10.5
Michaelis Constant	4.7 x 10 ⁻³ M (sarcosine)
Structure	monomer of 43 kDa (SDS-PAGE) one mole of FAD per mole of enzyme
Unit Definition	One unit (U) is defined as the amount of enzyme which produces 1 μmol of hydrogen peroxide per min at 37°C and pH 7.7.
Optimum pH	6.7–9.5



Creative Enzymes

Diagnostic Enzymes

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Optimum temperature	50°C
Thermal stability	below 55°C
Stability	Stability (liquid form) stable at 37°C for at least two weeks Stability (powder form) stable at 30°C for at least one month
Storage	at -20°C
Stabilizers	Sucrose
Inhibitors	Zn ²⁺ , Cu ²⁺ , Hg ²⁺ , Ag ⁺
Synonyms	Sarcosine Oxidase; EC 1.5.3.1; SAO