

ENZYMES

BY

SORACHIM

Sarcosine Oxidase from microorganism

SAO-351

SPECIFICATIONS

Product name	Sarcosine:oxygen oxidoreductase (demethylating)
EC	1.5.3.1
Appearance	Yellowish amorphous powder, lyophilized
Activity	Grade III, 8 U/mg-solid or more
Contaminants	Catalase \leq 1%
Stabilizers	Potassium chloride
Stability	Stable at - 20 °C for at least 12 months
Molecular weight	Approx. 43,000 (by SDS-PAGE)
Isoelectric point	4.8 \pm 0.1
Michaelis constants	2.8 \times 10 ⁻³ M
Inhibitors	Cu ²⁺ , Ag ⁺ , Hg ²⁺ , p-chloromercuribenzoate, N-ethylmaleimide, SDS
Optimum pH	7.5-8.5
Optimum temperature	55-60 °C
pH Stability	pH 6.0 - 9.5 (25 °C, 20hr)
Thermal stability	below 60 °C (pH 7.5, 30min)

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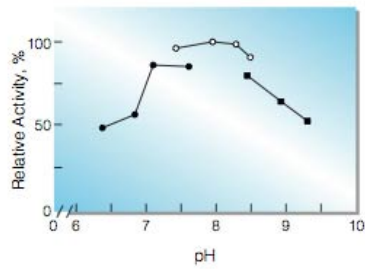


Fig.1. pH-Activity
 (37°C in 0.1M buffer solution :
 pH6.5-7.5 K-phosphate, pH7.5-8.5
 Tris-HCl; pH8.5-9.5 Glycine-NaOH)

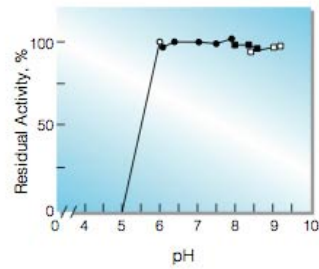


Fig.3. pH-Stability
 (25°C, 24hr-treatment with 100mM
 buffer solution: pH5-6 Acetate buffer,
 pH6-8 K-phosphate, pH8-9 Tris-HCl,
 pH8.5-9.5 Glycine-NaOH)

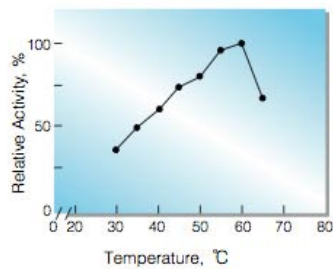


Fig.2. Temperature activity
 (in 0.1M Tris-HCl buffer : pH8.0)

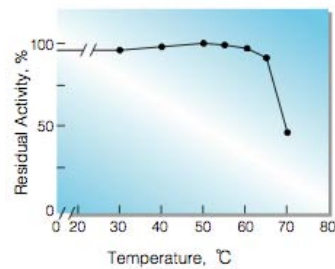


Fig.4. Thermal stability
 (30min-treatment with 50mM
 K-phosphate pH7.5
 (contg. 100mM NaCl)
 (enzyme concn. 5U/ml)

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