

ENZYMES

BY

SORACHIM

Cholesterol Esterase from *Pseudomonas* sp.

COE-311

SPECIFICATIONS

Product name:	Steryl-ester acylhydrolase
EC	3.1.1.13
Appearance	Light brown amorphous powder lyophilized
Activity	Grade III, 100 U/mg-solid or more (containing approx. 40% of stabilizers)
Contaminant	Catalase $\leq 1.0 \times 10^{-2}\%$
Stabilizers	Mg ²⁺ , Na-cholate, bovine serum albumin
Stability	Stable at - 20 °C for at least 12 months
Molecular weight	approx. 300,000
Isoelectric point	5.9 ± 0.1
Michaelis constants	5.4 × 10 ⁻⁵ M (Linoleate), 6.6 × 10 ⁻⁵ M (Oleate) 3.7 × 10 ⁻⁵ M (Linolenate), 1.5 × 10 ⁻⁴ M (Palmitate) 1.2 × 10 ⁻⁴ M (Myristate), 2.3 × 10 ⁻⁵ M (Stearate)
Inhibitors	Hg ²⁺ , Ag ⁺ , ionic detergents
Optimum pH	7.0 - 9.0
Optimum temperature	40 °C
pH stability	5.0 - 9.0 (25 °C, 24hr)
Thermal stability	below 55 °C (pH 7.5, 10min)

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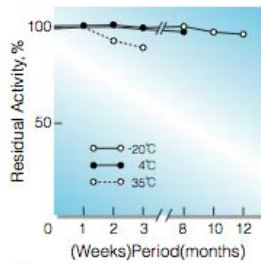


Fig.1. Stability (Powder form)
[kept under dry conditions]

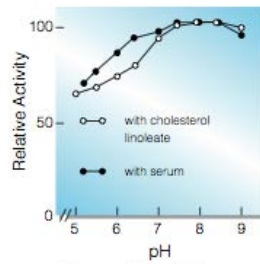


Fig.3. pH-Activity
[37°C, in 0.2 M K-phosphate buffer]

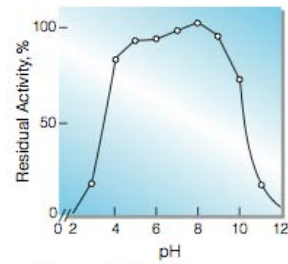


Fig.5. pH-Stability
[25°C, 24hr-treatment with 0.2M Britton-Robinson buffer]

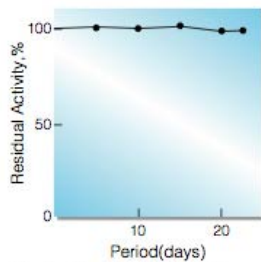


Fig.2. Stability (Liquid form at 5°C)
[enzyme concentration:673.5U/ml
buffer composition :0.1M K-phosphate
buffer,pH7.0]

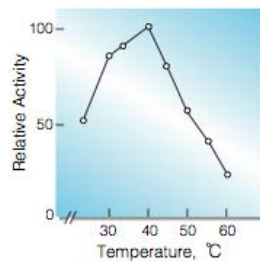


Fig.4. Temperature activity
[in 0.1M K-phosphate buffer,
pH7.0]

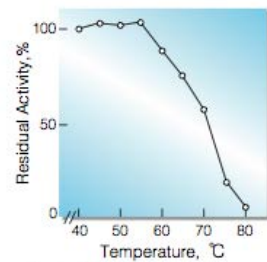


Fig.6. Thermal stability
[10min-treatment with 20mM K-phosphate
buffer,pH7.5 contg. 2mM MgCl₂& 0.5mM
EDTA·Na₂]

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