

# ENZYMES

BY

# SORACHIM

## Cholesterol Oxidase from Microorganism

### COO-321

#### SPECIFICATIONS

Product name:	Cholesterol: oxygen oxidoreductase
EC	1.1.3.6
Appearance:	Yellowish amorphous powder, lyophilized
Activity:	Grade III, 12 U/mg or more
Contaminants:	Catalase: < 0.1 % Cholesterol esterase: < 0.01 %
Stability:	Stable at - 20 °C for at least 12 months
Stabilizers:	Bovine serum albumin, amino acids
Molecular weight:	Approx. 55000(by gel-filtration)
Isoelectric point:	4.6 ± 0.1 and 4.9 ± 0.1 and 5.2 ± 0.1
Michaelis constants:	2.1 x 10 <sup>-5</sup> M (Cholesterol)
Inhibitors:	Ionic detergents, Ag <sup>+</sup> , Hg <sup>2+</sup>
Optimum pH:	7.0 - 8.0
Optimum temperature:	60 °C
pH Stability:	pH 5.0 - 10.0 (25 °C, 20hr)
Thermal stability:	Below 55 °C (pH 7.0, 15 min)

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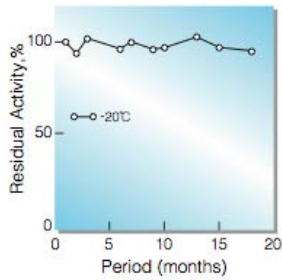


Fig.1. Stability (Powder form)  
(kept under dry conditions)

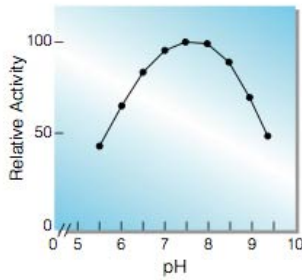


Fig.3. pH-Activity  
(37°C in 0.1M K-phosphate buffer solution)

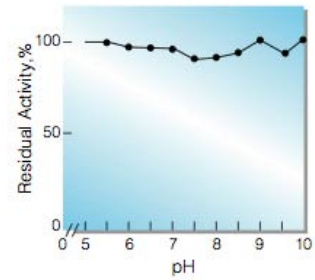


Fig.5. pH-Stability  
(25°C 20 hr-treatment with 50mM buffer solution: pH5.0-6.0, acetate; pH6.5-8.5, K-phosphate; pH9-10.0, K<sub>2</sub>CO<sub>3</sub>-NaHCO<sub>3</sub>)

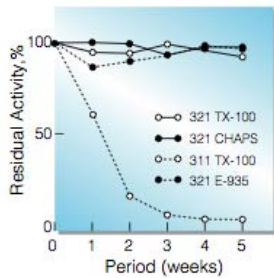


Fig.2. Stability (Liquid form)  
(40°C in buffer solution, pH7.0)

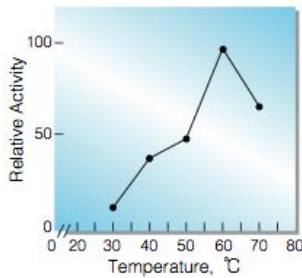


Fig.4. Temperature activity  
(in 0.1M K-phosphate buffer, pH 7.0)

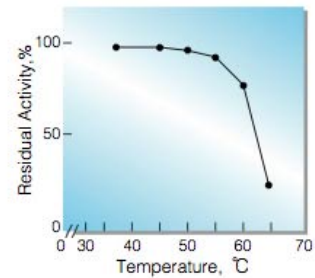


Fig.6. Thermal stability  
(15 min-treatment with 50mM K-phosphate buffer, pH7.0)

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