

ENZYMES  
BY

SORACHIM

Choline Oxidase from *Alcaligenes* sp.

CHO-301

SPECIFICATIONS

Appearance :	Yellowish amorphous powder, lyophilized
EC :	1.1.3.17
Activity :	> 10 U/mg-solid (contains approx. 20% of stabilizers)
Contaminant :	Catalase : $\leq 1.0 \times 10^{-2} \%$
Stabilizers :	EDTA, BSA , Amino acids
Stability :	Stable at - 20°C for at least 12 months
Molecular weight :	approx. 95,000
Isoelectric point :	4.1 $\pm$ 0.1
Michaelis constants :	2.84 $\times 10^{-3}$ M (Choline), 5.33 $\times 10^{-3}$ M (Betaine aldehyde)
Structure :	1 mol of FAD is covalently bound to 1 mol of the enzyme
Inhibitors :	p-Chloromercuribenzoate, Cu <sup>2+</sup> Co <sup>2+</sup> , Hg <sup>2+</sup> , Ag <sup>+</sup>
Optimum pH :	8.0 - 8.5
Optimum temperature :	40 – 45 °C
pH Stability :	pH 7.0 - 9.0 (30°C, 2 hr)
Thermal stability :	below 37°C (pH 7.5, 10min)

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### CHO-301

#### SPECIFICATIONS

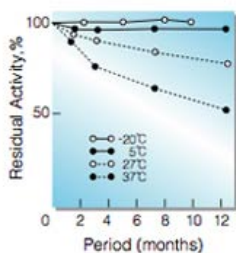


Fig.1. Stability (Powder form)  
(kept under dry conditions)

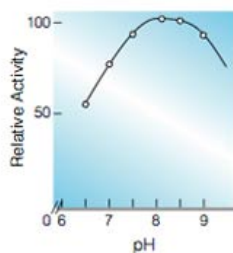


Fig.3. pH-Activity  
(37°C, in 50mM K-phosphate buffer)

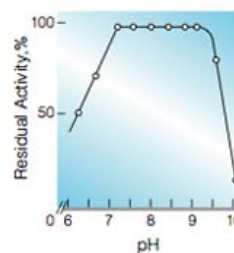


Fig.5. pH-Stability  
(30°C, 2hr-treatment with 50mM buffer solution: pH6.0-9.0, K-phosphate; pH9.0-10.0, glycine-NaCl-NaOH.)

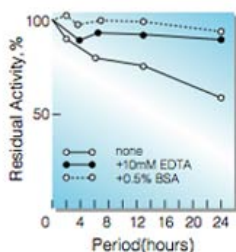


Fig.2. Stability (Liquid form at 37°C)  
(enzyme concentration: 1.0mg/ml  
buffer composition: 0.1M K-phosphate buffer, pH7.5)

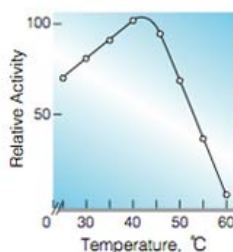


Fig.4. Temperature activity  
(in 50mM K-phosphate buffer, pH7.5)

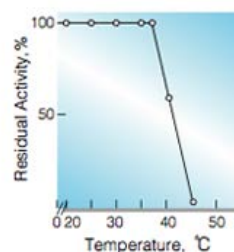


Fig.6. Thermal stability  
(15min-treatment with 50mM K-phosphate buffer, pH7.5)

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