

# CE (PP)

## Cholesterol esterase Sterol esterase

Sterol-ester acylhydrolase (EC 3.1.1.13)

### from *Porcine pancreas*

#### Reaction Equation

Cholesterol ester + H<sub>2</sub>O = Sterol + Fatty acid

#### Specification

##### Specific Activity

IU/mg protein

##### Specifications

> 15 units

##### Contaminants

Trypsin  
Chymotrypsin  
Glucose oxidase  
Uricase

< 0.04%  
< 0.6%  
< 0.001%  
< 0.003%

#### Preparation and storage

Product Code : CE-03

Lyophilized powder (contains no ammonium sulfate)

.....below -20°C

#### OYC No./Package

OYC No.	Package
46760003	100 units
46758003	1,000 units
46758903	Bulk

#### Assay Procedure

##### I. Spectrophotometric Method

Wavelength ; 505 nm, Light path length ; 1 cm,  
Temperature ; 37°C

Pipette the following reagents into a cuvette

0.20 mL Sodium cholate (0.66 mol/L)  
0.50 mL Cholesterol acetate (4.7 mmol/L in 10%  
Polyoxyethylene 9-lauryl ether)  
2.50 mL 4-Amino-antipyrine (0.91 mmol/L)  
and phenol (6 mmol/L) in sodium  
Phosphate buffer (0.1 mol/L, pH 7.0),  
prepared fresh daily  
0.05 mL CO (35 IU/mL at 37°C)  
0.10 mL POD (1 mg/mL)  
Stir and equilibrate to 37°C  
0.05 mL CE (0.1~1.0 IU/mL)

##### II. Calculation

$$\frac{\Delta A/\text{min} \cdot V \cdot D}{6.8 \cdot d \cdot v} = \text{IU/mL}$$

$\Delta A/\text{min}$  = The change in absorbance at 505 nm/minute

V = Total volume of reaction mixture (3.40 mL)

D = Enzyme dilution factor

6.8 = mM extinction coefficient of Quinoneimine dye  
(L · mmol<sup>-1</sup> · cm<sup>-1</sup>)

d = Light path length (1 cm)

v = Volume of enzyme sample (0.05 mL)

(Research reagent use only, not for medical use.)

