POD

Peroxidase EC 1.11.1.7

from Horseradish roots

Reaction Equation

Donor + H_2O_2 → Oxidized donor + $2H_2O$

Specification

Specific Activity

U/mg protein > 450 units

Contaminants

Catalase < 0.5%

Phosphatase < 0.005%

Assay Procedure

I Spectrophotometric Method

Wavelength : 510 nm, Light path length : 1 cm

Temperature : 25 ℃

Pipette the following reagents into a cuvette

1.40 mL	Phenol solution (0.17 mol/L) containing 4-Aminoantipyrine (2.5 mmol/L)
1.50 mL	Potassium phosphate (0.2 mol/L, pH 7.0) containing Hydrogen peroxide (1.7 mmol/L)
0.10 mL	POD (0.5 - 1.0 U/mL)

II Calculation

$$\frac{\Delta A/min \cdot V \cdot D}{13.2 \cdot d \cdot v} \times 2 = U/mL$$

Δ A/min = The change in absorbance at 510 nm/minute

V = Total volume of reaction mixture (3.00 mL)

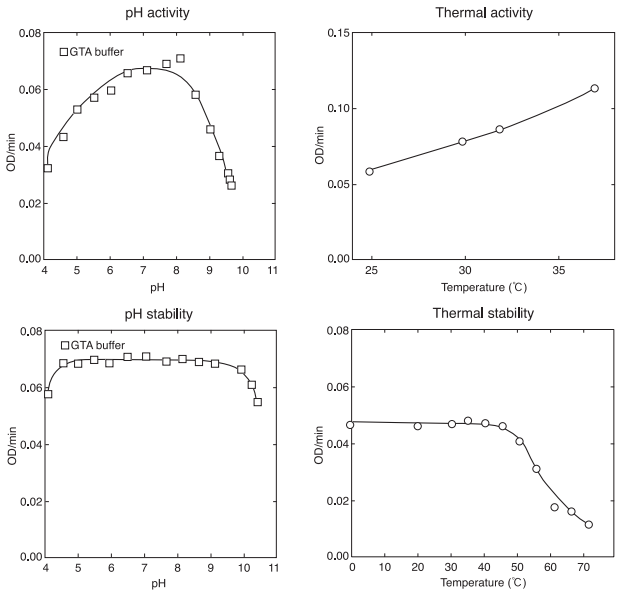
D = Enzyme dilution factor

13.2 = mmol/L extinction coefficient of Quinoneimine dye ($L \cdot mmol^{-1} \cdot cm^{-1}$)

d = Light path length (1 cm)

v = Volume of enzyme sample (0.10 mL)

Reference Data



Preparation and Storage

Lyophilized powder (Ammonium sulfate free)

Store below -20 ℃

Cat. No./Package

Cat. No.	Package
46261003	10,000 units
46262003	50,000 units
46260903	Bulk

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