

# POD

**Peroxidase** EC 1.11.1.7

*from Horseradish roots*

## Reaction Equation



## 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°C

Pipette the following reagents into a cuvette

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

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

$\Delta A/\text{min}$  = The change in absorbance at 510 nm/minute

$V$  = Total volume of reaction mixture (3.00 mL)

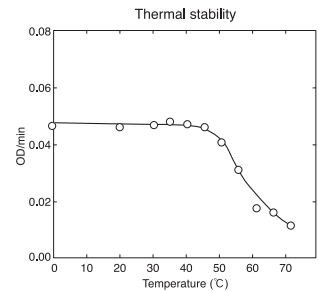
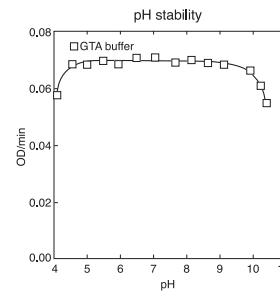
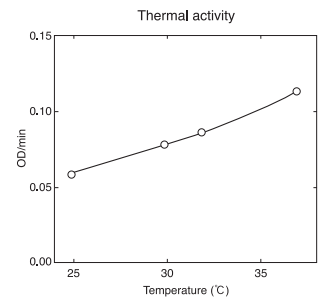
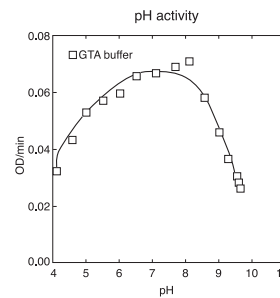
$D$  = Enzyme dilution factor

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

$d$  = 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°C

## Cat. No./Package

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

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