# X O D

## Xanthine oxidase

**Xanthine : oxygen oxidoreductase (1.1.3.22)**

## *from Butter milk*

### Reaction Equation

Xanthine + $O_2$ + $H_2O$ = Uric acid + $H_2O_2$

### Specification

#### Specific Activity

IU/mg protein

Specifications
>0.25 units

### Assay Procedure

**Ⅰ. Spectrophotometric Method**

Wavelength ; 290 nm, Light path length ; 1 cm,
Temperature ; 25℃

Pipette the following reagents into a cuvette

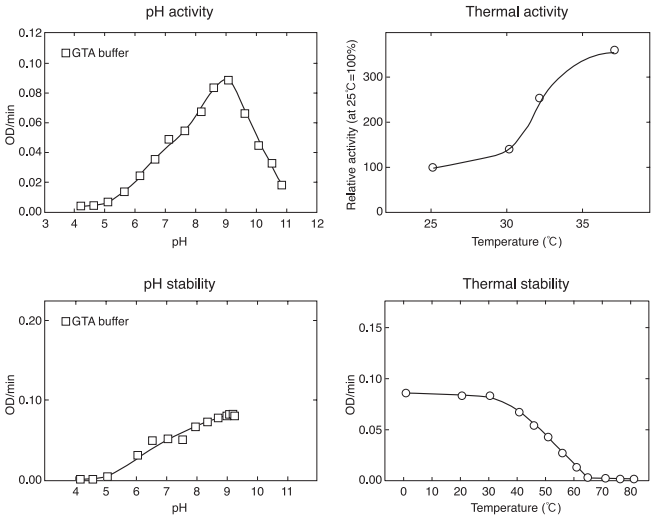
| | |
|---|---|
| 3.00 mL | Sodium phosphate buffer (50 mmol/L, pH 7.5) containing Xanthine sodium salt (0.1 mmol/L) |
| 0.10 mL | XOD (about 0.06 IU/mL) |

**Ⅱ. Calculation**

$$\frac{\Delta A/min \cdot V \cdot D}{12.3 \cdot d \cdot v} = IU/mL$$

ΔA/min = The change in absorbance at 290 nm/minute
V = Total volume of reaction mixture (3.10 mL)
D = Enzyme dilution factor
12.3 = mM extinction coefficient of Uric acid
($L \cdot mmol^{-1} \cdot cm^{-1}$)
d = Light path length (1 cm)
v = Volume of enzyme sample (0.10 mL)

### Reference Data




### Preparation and storage

Product Code : XOD-93
Lyophilized powder (contains no ammonium sulfate)
·····below −20℃
IU per 1 mg powder is approximately 0.3 units.

### OYC No./Package

| OYC No. | Package |
|---|---|
| 46264003 | 60 units |
| 46265003 | 300 units |
| 46263903 | Bulk |

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