

# G O D (AN)

## Glucose oxidase

$\beta$ -D-Glucose : oxygen 1-oxidoreductase (EC 1.1.3.4)

*from Aspergillus niger*

### Reaction Equation



### Specification

#### Specific Activity

IU/mg protein

#### Contaminants

Amylase  
Invertase  
Catalase

#### Specifications

>300 units

<0.01%

<0.01%

<0.5%

### Assay Procedure

#### I. Spectrophotometric Method

Wavelength ; 436 nm, Light path length ; 1 cm,  
Temperature ; 25°C

Pipette the following reagents into a cuvette

3.00 mL Potassium phosphate buffer  
(0.1 mol/L, pH 6.0)  
containing *o*-Dianisidine (5.5 mg/100 mL) ,  
 $\beta$ -D-Glucose (9.0 g/100 mL)  
0.01 mL POD (10 mg/mL)  
0.02 mL GOD solution in phosphate buffer  
(0.1 mol/L, pH 7.5) (about 1~2.5 U/mL)

#### II. Calculation

$$\frac{\Delta A/\text{min} \cdot V \cdot D}{8.7 \cdot d \cdot v} = \text{IU/mL}$$

$\Delta A/\text{min}$  = The change in absorbance at 436 nm/minute

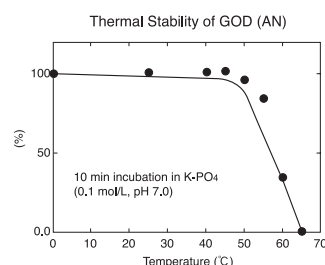
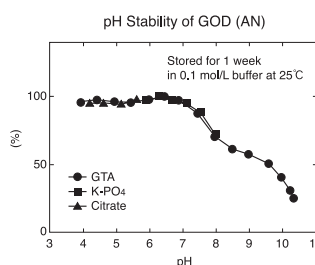
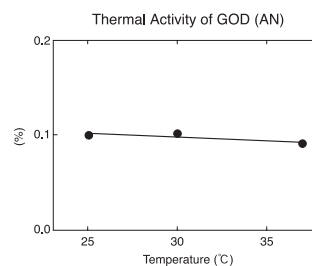
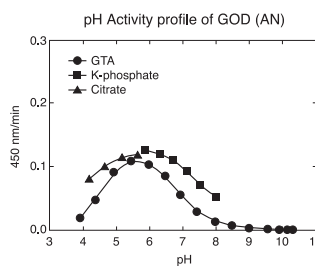
$V$  = Total volume of reaction mixture (3.03 mL)

8.7 = mM extinction coefficient of *o*-Dianisidine  
( $\text{L} \cdot \text{mmol}^{-1} \cdot \text{cm}^{-1}$ )

$d$  = Light path length (1 cm)

$v$  = Volume of enzyme sample (0.02 mL)

### Reference Data



### Preparation and storage

Product Code : GOD-03

Lyophilized powder (contains no ammonium sulfate)

.....below -20°C

IU per 1 mg powder is approximately 450 units.

### OYC No./Package

OYC No.	Package
46524003	3,000 units
46526003	10,000 units
46527003	50,000 units

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



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