

Glucoamylase

Glucoamylase EC 3.2.1.3

from Rhizopus sp.

Reaction Equation

Starch + n H₂O = n β-Glucose

Specification

Specific Activity

U/mg protein > 20 units

Assay Procedure

I Spectrophotometric Method

Wavelength : 340 nm, Light path length : 1 cm

Temperature : 37°C

Pipette the following reagents into a cuvette

	α-Glycerophosphate buffer (50 mmol/L, pH 6.0) containing NAD ⁺ (1.3 mmol/L)
3.00 mL	ATP (1.1 mmol/L)
	Maltopentaose (3.3 mmol/L)
	MgCl ₂ (0.18 mmol/L)
0.01 mL	HK (1,200 U/mL)
0.01 mL	G6PDH (L) (1,200 U/mL)
0.02 mL	Glucoamylase (approx. 2 U/mL)

II Calculation

$$\frac{\Delta A/\text{min} \cdot V \cdot D}{6.3 \cdot d \cdot v} = \text{U/mL}$$

Δ A/min = The change in absorbance at 340 nm/minute

V = Total volume of reaction mixture (3.04 mL)

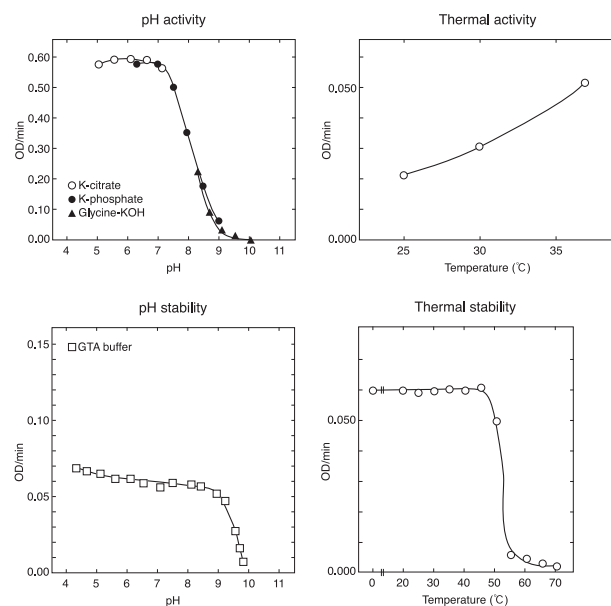
D = Enzyme dilution factor

6.3 = mmol/L extinction coefficient of NADH
(L · mmol⁻¹ · cm⁻¹)

d = Light path length (1 cm)

v = Volume of enzyme sample (0.02 mL)

Reference Data



Preparation and Storage

Lyophilized powder

Store below -20°C

Cat. No./Package

Cat. No.	Package
46817903	Bulk

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