

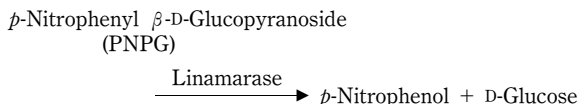
FUJIFILM

Wako

Code No. 122-03251 (100 units)

Linamarase
(β -D-Glucosidase)**リナマラーゼ**
(β -D-グルコシダーゼ)

Source : *Phaseolus lunatus*
Appearance : Lyophilized powder
Activity : Indicated on the label
Optimum pH : 5.2~6.0
Optimum temperature : 50 °C
Stability (pH) : 4.0~8.1 (37 °C, 22 hours), after reconstitution
Stability (temperature) : 50 °C (1 hour), after reconstitution
Cyanogenic glucoside : max. 0.3 μ g CN⁻/unit

Assay method**1. Principle****2. Reagents**

- 50 mmol/L Citrate buffer, pH 5.2
- 20 mmol/L PNPG solution
(Dissolve in Reagent A. It can be used for 2 weeks at 0 ~ 5 °C.)
- 50 mmol/L Citrate buffer, pH 5.5
- Enzyme solution
(Dilute to 1 unit/mL with Reagent C.)
- Stop solution (0.2 mol/L Borate buffer, pH 9.8)

Trans ***2. 試薬**

- 50 mmol/L クエン酸緩衝液、pH 5.2
- 20 mmol/L PNPG 溶液
(試薬Aに溶解する。0~5℃保存で2週間使用可能)
- 50 mmol/L クエン酸緩衝液、pH 5.5
- 酵素溶液
(試薬Cで希釈して1 unit/mLにする)
- 反応停止液 (0.2 mol/L ほう酸緩衝液、pH 9.8)

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3. Procedure

Reagent	Test	Control
B	0.5 mL	0.5 mL
Pre-incubate for 5 min at 37 °C.		
D	20 μ L	—
Incubate for 10 min at 37 °C.		
E	3.5 mL	3.5 mL
D	—	20 μ L
Measure the absorbance at 400 nm of wave length. Trans * 波長 400 nm における吸光度を測定する。		

4. Unit Definition

One unit is the amount of enzyme, which will produce 1 μ mol of *p*-nitrophenol per minute under the above conditions.

(Calculation)

$$\text{units/mg} = (\Delta A_{\text{test}} - \Delta A_{\text{control}}) \times \frac{1}{10} \times \frac{1}{17.7} \times 4.02 \times \frac{1}{S \times 0.02}$$

- 10 : Reaction time (min)
17.7 : Milli-molar extinction coefficient of *p*-nitrophenol
4.02 : Total volume (mL)
S : Enzyme Concentration (mg/mL)
0.02 : Sample volume (mL)

Trans ***4. 単位の定義**

前記の条件下、1 分間に 1 μ mol の *p*-ニトロフェノールを生成する酵素量を 1 unit とする。

(計算)

$$\text{units/mg} = (\Delta A_{\text{test}} - \Delta A_{\text{control}}) \times \frac{1}{10} \times \frac{1}{17.7} \times 4.02 \times \frac{1}{S \times 0.02}$$

- 10 : 反応時間 (分)
17.7 : *p*-ニトロフェノールのミリモル吸光係数
4.02 : 総液量 (mL)
S : 酵素濃度 (mg/mL)
0.02 : 試料量 (mL)

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〔Storage〕 Store at 2 ~ 10℃.

〔Package〕 100 units

〔References〕

- 1) 宇田 裕, 伊藤智子, 冠 政光, 直井家壽太 : 衛生化学, **30**, 290 (1984).
- 2) Itoh-Nashida, T., Hiraiwa, M. and Uda, Y. : *J. Biochem.*, **101**, 847 (1987).

* : Trans is the Japanese translation.

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