

FUJIFILM

Wako

Code No. 072-04141 (10,000 units)

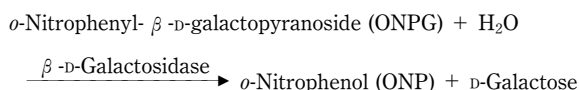
β -D-Galactosidase

β -D-ガラクトシダーゼ

Source : *Escherichia coli*
Form : lyophilized white powder
Activity : indicated on the label
Molecular weight : 540,000
Optimal pH : 7.0~7.5
Optimal temperature : 50~55 °C
Isoelectric point : 4.6

Assay method

1. Principle



2. Reagents

- 0.1 mol/L phosphate buffer, pH 7.3
- 3.36 mol/L mercaptoethanol solution
- 30 mmol/L MgCl₂ solution
- 34 mmol/L ONPG solution
- 50 mmol/L phosphate buffer containing 1 mmol/L MgCl₂, pH 7.3
- Enzyme solution [Add Reagent E to 8 mg of this product to obtain 100 mL of mixture. Add Reagent E to 1 mL of the mixture to prepare 100 mL of enzyme solution (0.8 μg/mL solution).]

Trans *

2. 試薬

- 0.1 mol/L リン酸緩衝液、pH 7.3
- 3.36 mol/L メルカプトエタノール溶液
- 30 mmol/L MgCl₂ 溶液
- 34 mmol/L ONPG 溶液
- 1 mmol/L MgCl₂ 含有の 50 mmol/L リン酸緩衝液、pH 7.3
- 酵素液 [本品 8 mg に試薬 E を加えて 100 mL とし、その 1 mL に試薬 E を加えて 100 mL とする (0.8 μg/mL 溶液)]

3. Procedure

Reagent	Test	Control
A (25 mL)	3.0 mL	3.0 mL
B (1 mL)		
C (1 mL)		
D (2 mL)		
F	0.1 mL	—
E	—	0.1 mL

The change in the absorbance in each cell at a wavelength of 410nm at 37 °C for 2~3 minutes is recorded.

The change in the absorbance from the initial straight line for one minute is specified as ΔA.

Trans *

37 °C、2~3 分間に各セルの 410 nm における吸光度変化を記録する。

その初期直線部分から 1 分間あたりの吸光度変化を ΔA とする。

4. Unit definition

The amount of enzyme producing 1 μmol of *o*-nitrophenol within one minute under the above-mentioned reaction conditions is specified as 1 unit.

Trans *

4. 単位の定義

前記条件で 1 分間に 1 μmol の *o*-ニトロフェノールを生成する酵素量を 1 unit とする。

(Calculation)

$$\text{unit}/\mu\text{L} = (\Delta A_{\text{test}} - \Delta A_{\text{control}}) \times \frac{1}{3.5} \times 3.1 \times \frac{1}{S \times \frac{1}{10000} \times \frac{1}{10}}$$

3.5 : millimolar absorptivity of ONP

3.1 : total volume of solution (mL)

S : measured volume of this product (mg)

[Storage] 2~10 °C.

[Package]

Code No.	Packaging
072-04141	10,000 units

[References]

- 1) Graven, G. R., Steer, E. Sr. and Anfinen, C. B. : *J. Biol. Chem.*, **240**, 2468 (1965).
- 2) Contaxis, C. C. and Reithel, F. J. : *Biochem. J.*, **124**, 623 (1971).

* : **Trans** is the Japanese translation.

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