

**FUJIFILM****Wako**

Code No. 018-10693 ( 50 units)  
 Code No. 012-10691 (100 units)

## Alkaline phosphatase (ALP) アルカリホスファターゼ (ALP)

Source : *Escherichia coli*

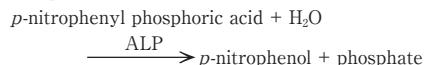
Appearance : Lyophilized powder

Activity : Indicated on the label

Optimal pH : 9.0

Optimal temperature : 37°C

Isoelectric point : 4.5

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

- A. 10 mmol/L *p*-nitrophenyl phosphoric acid disodium solution
- B. 500 mmol/L Tris-HCl buffer, pH 9.0
- C. 4 mol/L Sodium chloride solution
- D. 50 mmol/L Tris-HCl buffer, pH 9.0
- E. ALP solution (diluted with Reagent D to final concentration of 0.0012 mg/mL)
- F. Reaction stop solution (0.5 mol/L Sodium hydroxide solution)

[Trans] \*

**2. 試薬**

- A. 10mmol/L *p*-ニトロフェニルリン酸二ナトリウム溶液
- B. 500mmol/L トリス-塩酸緩衝液, pH 9.0
- C. 4mol/L 塩化ナトリウム溶液
- D. 50mmol/L トリス-塩酸緩衝液, pH 9.0
- E. ALP 液  
 (試薬 D で希釈して 0.0012mg/mL とする)。
- F. 反応停止液 (0.5mol/L 水酸化ナトリウム溶液)

**3. Procedure**

Reagent	Test	Control
A	2 mL	
B	2 mL	2.0 mL
C	10 mL	2.0 mL
Distilled water	5 mL	
	Preheat to 37°C	
E	0.1 mL	—
D	—	0.1 mL
	Incubate at 37°C for 10 min.	
F	1.0 mL	1.0 mL
	Measure the absorbance (A) of each sample at 420 nm	
	[Trans] * 各液の 420nm における吸光度 A を求める。	

**4. Unit definition**

One unit is the amount of enzyme required to produce 1  $\mu\text{mol}$  of *p*-nitrophenol in 1 minute under the above conditions.

[Trans] \*

**4. 単位の定義**

前記条件下で 1 分間に 1  $\mu\text{mol}$  の *p*-ニトロフェノールを生成する酵素量を 1 unit とする。

(Calculation)

$$\text{unit/mg} = (\text{A test} - \text{A control}) \times \frac{1}{10} \times \frac{1}{14.1} \times 3.1 \times \frac{1}{0.00012}$$

14.1 : Millimolar absorption coefficient of *p*-nitrophenol

3.1 : Total reaction volume (mL)

0.00012 : Sample amount (mg)

(計算)

$$\text{unit/mg} = (\text{A test} - \text{A control}) \times \frac{1}{10} \times \frac{1}{14.1} \times 3.1 \times \frac{1}{0.00012}$$

14.1 : *p*-ニトロフェノールのミリモル吸光係数

3.1 : 総液量 (mL)

0.00012 : 試料量 (mg)

[Storage] Store at -20°C.

**[Package]**

Code No.	Packaging
018-10693	50 units
012-10691	100 units

\* : [Trans] is the Japanese translation.

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