（90×210㎜ Size）

FUJIFILM Wako

〈For Research Use Only〉 Code No. 186-01491 (25 mg)
182-01493 (100 mg)
180-01494 (250 mg)

for Genetic Research

Ribonuclease A, from Bovine Pancreas

リボヌクレアーゼA，ウシ膵臓由来

[EC 3. 1. 27. 5]

Appearance : Lyophilized
Molecular Weight : Approximately 13,000
Activity : Indicated on the label
Optimal Temperature : 37℃

[Assay Method]

1. Principle
Ribonuclease A hydrolyzes cyclic 2', 3'-CMP into 3'-CMP. The assay measures the change in absorbance at 286 nm of the reaction mixture.

2. Reagents
A. 100 mmol/L Tris-acetate, pH 6.5
Dissolve 181 mg of 2-amino-2-hydroxymethyl-1,3-propanediol acetate and 3.7 mg of EDTA disodium salt in distilled water and bring the volume up to 10 mL.
B. Cytidine 2', 3'-cyclic Monophosphate Monosodium Salt Solution
Dissolve 24 mg of cytidine 2', 3'-cyclic monophosphate monosodium salt in 1 mL of distilled water.
C. Enzyme Solution
Dissolve 5 mg ribonuclease A in Reagent A for a final volume of 10 mL.

3. Procedure

Reagent	Test	Control
A	2,975 μL	2,990 μL
B	10 μL	10 μL
Preincubate at 30℃.		
C	15 μL	—
Measure the absorbance at 286 nm at room temperature for 5 min.		

Trans *

手 順

試 薬	本試験	空試験
A	2,975 μL	2,990 μL
B	10 μL	10 μL
30℃予備加温		
C	15 μL	—
直ちに室温で波長 286 nm における吸光度を 5 分間記録する。		

4. Unit Definition
One unit is defined as the amount of enzyme required to produce 1 nmol of 3'-CMP from cyclic 2', 3'-CMP per minute under the above conditions.

(Calculation)

$$A = \frac{(E_1 - E_2) \times 1{,}000 \times 1{,}000}{14.6} \times \frac{3}{15} \times \frac{10}{S}$$

A : Activity (units/mL)
E_1 : The change in absorbance of test per minute
E_2 : The change in absorbance of control per minute
14.6 : Millimolar extinction coefficient
15 : The used volume of Reagent C (μL).
S : The exact weighing amount of ribonuclease A at Reagent C preparation (mg).

Trans *

単位の定義
上記反応条件において、シチジン 2', 3'-(環状)一りん酸から 1 分間に 1 nmol のシチジン 3'-一りん酸を生成させる酵素量を 1 unit とする。

(計 算)

$$A = \frac{(E_1 - E_2) \times 1{,}000 \times 1{,}000}{14.6} \times \frac{3}{15} \times \frac{10}{S}$$

A : 活性 (units/mL)
E_1 : 本試験の 1 分間当たりの吸光度変化
E_2 : 空試験の 1 分間当たりの吸光度変化
14.6 : ミリモル吸光係数
15 : 試液 C 使用量 (μL)
S : 試液 C 調製時、量り取ったリボヌクレアーゼ A 量 (mg)

[Note]

1. This product is not tested for DNase activity. When inactivating DNase in this product, it is recommended to dissolve the Ribonuclease A at a concentration of 1 mg/mL. Precipitates may appear at high concentrations (ex, 10 mg/mL) when cooling to room temperature after heating.
2. Some extra-bands may be observed by SDS-PAGE.

Trans *

使用上のご注意：

1. 本品のDNase活性は確認しておりません。本品のDNase不活化を行う場合は、1 mg/mLで行って下さい。高濃度（例：10 mg/mL）で不活化を行った場合、加熱後室温に戻した際に沈殿を生じる場合があります。
2. SDS-PAGEにおいて、エキストラバンドが確認される場合があります。

[Storage] Store at 2～10℃

[Package]

Code No.	Packaging
186-01491	25 mg
182-01493	100 mg
180-01494	250 mg

＊ : Trans is the Japanese translation.

FUJIFILM Wako Pure Chemical Corporation

1-2, Doshomachi 3-Chome, Chuo-Ku, Osaka 540-8605, Japan
Telephone : + 81-6-6203-3741
Facsimile : + 81-6-6201-5964
http://www.wako-chem.co.jp

FUJIFILM Wako Chemicals U.S.A. Corporation
1600 Bellwood Road
Richmond, VA 23237
U.S.A.
Telephone : + 1-804-271-7677
Facsimile : + 1-804-271-7791
http://www.wakousa.com

FUJIFILM Wako Chemicals Europe GmbH
Fuggerstrasse 12
D-41468 Neuss
Germany
Telephone : + 49-2131-311-0
Facsimile : + 49-2131-311100
http://www.wako-chemicals.de

1801KA1