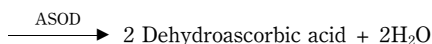


FUJIFILM**Wako**Code No. 012-10853 (200 units)
016-10851 (2,000 units)**Ascorbate Oxidase**
(ASOD)
アスコルビン酸オキシダーゼ
(ASOD)**Origin** : *Cucurbita* sp.**Form** : Lyophilized powder**Activity** : Indicated on the label**Molecular weight** : Approximately 140,000**Optimal pH** : 5.6~7.0**Optimal temperature** : 25℃**Isoelectric point** : 5.0~6.0**Assay method****1. Principle**

2L(+)-Ascorbic acid

**2. Reagents**

- A. 104 mmol/L Phosphate buffer, pH 5.6
(0.1 mol/L KH_2PO_4 , 4 mmol/L Na_2HPO_4 , 0.5 mmol/L EDTA)
- B. Approximately 0.5 mmol/L L(+)-ascorbic acid solution
(Prepare an approximately 0.5 mmol/L solution by dissolving this product in Reagent A.)
- C. 4 mmol/L Na_2HPO_4 solution (containing 0.05% of albumin)
- D. Enzyme solution (prepare a 0.0016 mg/mL solution by dissolving in Reagent C.)
- E. Reaction stop solution (0.2 mol/L HCl)

Trans *

- A. 104 mmol/L リン酸塩緩衝液、pH 5.6
(0.1 mol/L KH_2PO_4 , 4 mmol/L Na_2HPO_4 , 0.5 mmol/L EDTA)
- B. 約0.5 mmol/L L(+)-アスコルビン酸溶液
(試薬Aに溶解して約0.5 mmol/L液を調製する)
- C. 4 mmol/L Na_2HPO_4 溶液 (0.05%アルブミンを含む)
- D. 酵素液 (試薬Cに溶解して0.0016 mg/mLとする)
- E. 反応停止液 (0.2 mol/L HCl)

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3. Procedure

Reagent	Test	Control
B	1.0 mL	1.0 mL
Preheat at 25℃		
D	0.1 mL	—
C	—	0.1 mL
Reaction at 25℃ for 5 minutes		
E	3.0 mL	3.0 mL
The absorbance at a wavelength of 245 nm is specified as A.		
Trans *		
245 nmにおける吸光度をAとする。		

4. Unit definition

The amount of enzyme producing 1 μmol of dehydroascorbic acid at 25℃ for one minute under the above-mentioned reaction condition is specified as 1 unit.

Trans *

4. 単位の定義

前記反応条件下で25℃、1分間に1 μmol のデヒドロアスコルビン酸を生成する酵素量を1 unitとする。

<Calculation>

$$\text{units/mg} = (\text{A}_{\text{control}} - \text{A}_{\text{test}}) \times \frac{1}{5} \times \frac{1}{10} \times 4.1 \times \frac{1}{0.00016}$$

5 : reaction time (minute)

10 : millimolar absorptivity of L(+)-ascorbic acid

4.1 : total volume of solution (mL)

0.00016 : sample amount (mg)

[Storage] 2~10℃**[Package]**

Code No.	Packaging
012-10853	200 units
016-10851	2,000 units

[References]

- 1) Tokuyama, K. : *Biochemistry*, **4**, 1362 (1965).
 2) Lee, C. R. D. : *J. Biol. Chem.*, **248**, 6596 (1973).
 3) Nakamura, T. : *J. Biochem.*, **64**, 189 (1968).

* : Trans is the Japanese translation.

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