

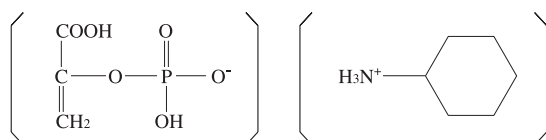
PEP

phosphoenolpyruvate (monocyclohexyl ammonium salt)

2-Phosphoenol pyruvic acid

Crystalline

Structure



Formula : C₃ H₄ O₆ P · C₆ H₁₄ N

Formula weight : 267.2

Specification

Purity

Determined by Enzymatic Method (PK, LDH)
Pyruvate content

Water Content

Specifications

≥95%

<1%

<1%

Assay Procedure

I. Spectrophotometric Method

Wavelength ; 340 nm, Light path length ; 1 cm

Pipette the following reagents into a cuvette

	a	b	c
Tris-HCl/K ⁺ & Mg ²⁺ (0.1 mol/L, pH 7.5/0.12 mol/L & 0.012 mol/L)	5.0 mL	5.0 mL	5.0 mL
ADP (50 mg/mL)	0.1 mL	0.1 mL	—
NADH (5 mg/mL) dissolved in Tris (50 mmol/L)	0.1 mL	0.1 mL	—
PEP (0.25 mg/mL)	0.5 mL	0.5 mL	—
Distilled water	0.1 mL	0.2 mL	0.9 mL
LDH (100 IU/mL)	0.1 mL	0.1 mL	—
PK (100 IU/mL)	0.1 mL	—	0.1 mL

II. Calculation

$$\frac{\Delta A \cdot V \cdot MW \times 100}{6.3 \times 10^3 \cdot d \cdot v \cdot s} \times \frac{100}{(100 - W)} = \text{Purity of PEP}$$

$$\Delta A = (A_b + A_c) - A_a$$

V = Total volume of reaction mixture (6.0 mL)

MW = 267.2

6.3×10^3 = Molar extinction coefficient of NADH at 340 nm (L · mol⁻¹ · cm⁻¹)

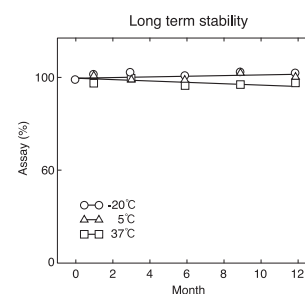
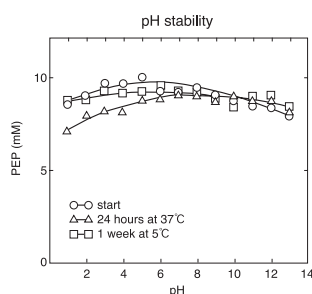
d = Light path length (1 cm)

v = Sample volume (0.5 mL)

s = Sample concentration (0.25 mg/mL)

W = Water Content (%)

Reference Data



Storage

Keep tightly stoppered in the dark below 5°C.
Moisture will accelerate the purity reduction.
For prolonged storage keep below -20°C.

OYC No./Package

OYC No.	Package
45170000	1 g
45170900	Bulk

(Research reagent use only, not for medical use.)



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