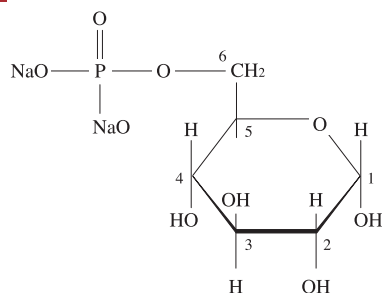


G - 6 - P

D-Glucose 6-phosphate (disodium salt)
 α -D-(+)-Glucopyranose-6-phosphate (disodium salt)
Robison ester

prepared enzymatically

Structure



Formula : $C_6 H_{11} O_9 P \cdot Na_2$

Formula weight : 304.1

Specification

Purity

Determined by Enzymatic Method (G-6-PDH)

Water Content

Na

Specifications

$\geq 95\%$

$< 15\%$

9.0~15.5%

Assay Procedure

I. Spectrophotometric Method

Wavelength ; 340 nm, Light path length ; 1 cm,
Temperature ; 25°C

Pipette the following reagents into a cuvette

2.65 mL	Tris-HCl (0.1 mol/L, pH 8.5)
0.10 mL	NADP ⁺ (20 mmol/L)
0.25 mL	G-6-P (0.4 mg/mL)
	measure the absorbance at 340 nm Aa
0.01 mL	G6PDH (Y) (1,000 IU/mL)
	measure the absorbance at 340 nm Ab

II. Calculation

$$\frac{\Delta A \cdot V \cdot MW \times 100}{6.2 \times 10^3 \cdot d \cdot v \cdot s} \times \frac{100}{(100 - S - W)} = \text{Purity of G-6-P}$$

$$\Delta A = A_b - A_a$$

V = Total volume of reaction mixture (3.01 mL)

MW = 260.1, anhydrate/sodium free

6.2×10^3 = Molar extinction coefficient of NADPH
at 340 nm ($L \cdot mol^{-1} \cdot cm^{-1}$)

d = Light path length (1 cm)

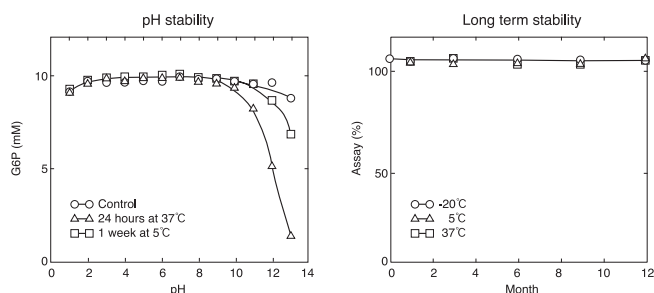
v = Sample volume (0.25 mL)

s = Sample concentration (0.4 mg/mL)

S = Na (%)

W = Water Content (%)

Reference Data



Preparation and storage

Keep tightly stoppered in the dark below 5°C.
For prolonged storage keep below -20°C.
Solution is most stable at pH 2~5.

OYC No./Package

OYC No.	Package
45195000	1 g
45197000	10 g
45195900	Bulk

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



ORIENTAL YEAST CO.,LTD.