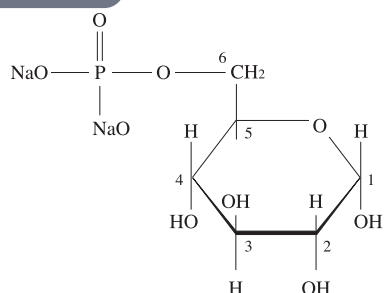


G6P

D-Glucose 6-phosphate (disodium salt)

prepared enzymatically

Structure



Formula

: $C_6H_{11}O_9P \cdot Na_2$

Formula Weight

: 260.1 (as anhydrous free acid)
: 304.1 (as disodium anhydrate)
: 340.1 (as disodium dihydrate)

Specification

Purity

Determined by Enzymatic Method (G6PDH) $\geq 95\%$

Water Content

< 15%

Na Content

9.0 - 15.5%

Assay Procedure

I Spectrophotometric Method

Wavelength : 340 nm, Light path length : 1 cm

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	G6P (0.4 mg/mL) measure the absorbance at 340 nm Aa
0.01 mL	G6PDH (Y) (1,000 U/mL) measure the absorbance at 340 nm Ab

II Calculation

$$\frac{\Delta A \cdot V \cdot MW \times 100}{6.2 \times 10^3 \cdot d \cdot v \cdot s} \times \frac{100}{(100 - S - W)} = \text{Purity of G6P}$$

$\Delta A = A_b - A_a$

V = Total volume of reaction mixture (3.01 mL)

MW = 260.1, anhydrous free acid

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)

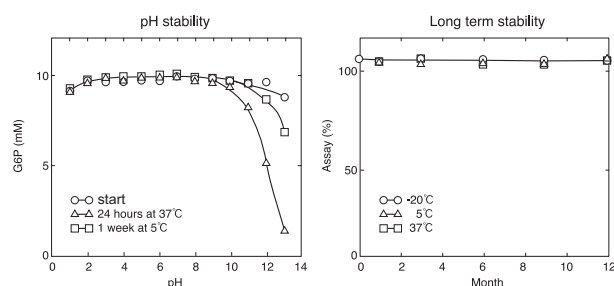
v = Sample volume (0.25 mL)

s = Sample concentration (0.4 mg/mL)

S = Na (%)

W = Water content (%)

Reference Data



Preparation and Storage

Store below -20°C. Handling during short term such as transportation is allowed at 1 - 10°C.

Store in the dark. Keep off humidity.

Cat. No./Package

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

