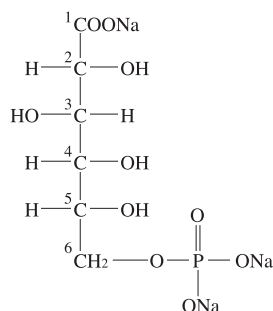


# 6 - P G

6-Phospho-D-gluconate (trisodium salt)

*prepared enzymatically*

## Structure



**Formula** : C<sub>6</sub> H<sub>10</sub> O<sub>10</sub> P · Na<sub>3</sub>

**Formula weight** : 342.1

## Specification

### Purity

Determined by Enzymatic Method (6-PGDH)

### Water Content

### Na

### Specifications

≥ 95%

< 10%

19.7 ± 2.5%

## 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 (0.1 mol/L, pH 8.5)  | 5.0 mL | 5.0 mL | 5.0 mL |
| NADP <sup>+</sup> (20 mmol/L) | 0.1 mL | 0.1 mL | —      |
| 6-PG (0.2 mg/mL)              | 0.5 mL | 0.5 mL | —      |
| 6PGDH (50 IU/mL)              | 0.1 mL | —      | 0.1 mL |
| Distilled water               | 0.3 mL | 0.4 mL | 0.9 mL |

## II . Calculation

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

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

V = Total volume of reaction mixture (6.0 mL)

MW = 276.1, anhydrate/sodium free

6.2 × 10<sup>3</sup> = Molar extinction coefficient of NADPH at 340 nm (L · mol<sup>-1</sup> · cm<sup>-1</sup>)

d = Light path length (1 cm)

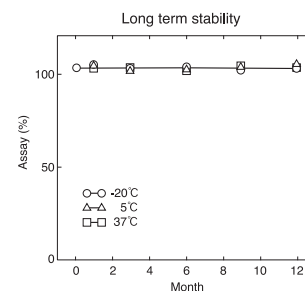
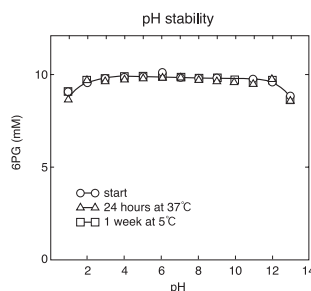
v = Sample volume (0.5 mL)

s = Sample concentration (0.2 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 2~13.

## OYC No./Package

|          |         |
|----------|---------|
| OYC No.  | Package |
| 45190000 | 100 mg  |
| 45192000 | 1 g     |
| 45192900 | Bulk    |

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



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