

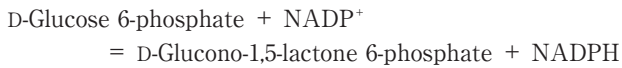
G-6-PDH

Glucose-6-phosphate 1-dehydrogenase

D-Glucose-6-phosphate : NADP⁺ 1-oxidoreductase (EC 1.1.1.49)

from Yeast

Reaction Equation



Specification

Specific Activity

IU/mg protein

Contaminants

Glutathione reductase
Hexokinase
Phosphogluconate dehydrogenase
Glucosephosphate isomerase
Phosphoglucomutase
Creatine kinase
Myokinase
ATPase

Specifications

>250 units

<0.2%

<0.02%

<0.01%

<0.01%

<0.01%

<0.001%

<0.01%

<0.001%

Assay Procedure

I. Spectrophotometric Method

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

Pipette the following reagents into a cuvette

2.50 mL	Glycylglycine buffer (0.1 mol/L,pH 8.5)
0.30 mL	MgCl ₂ (0.2 mol/L)
0.15 mL	G-6-P (10 mmol/L)
0.15 mL	NADP ⁺ (10 mmol/L)
0.02 mL	G-6-PDH (yeast) (about 3 IU/mL)

II. Calculation

$$\frac{\Delta A/\text{min} \cdot V \cdot D}{6.2 \cdot d \cdot v} = \text{IU/mL}$$

$\Delta A/\text{min}$ = The change in absorbance at 340 nm/minute

V = Total volume of reaction mixture (3.12 mL)

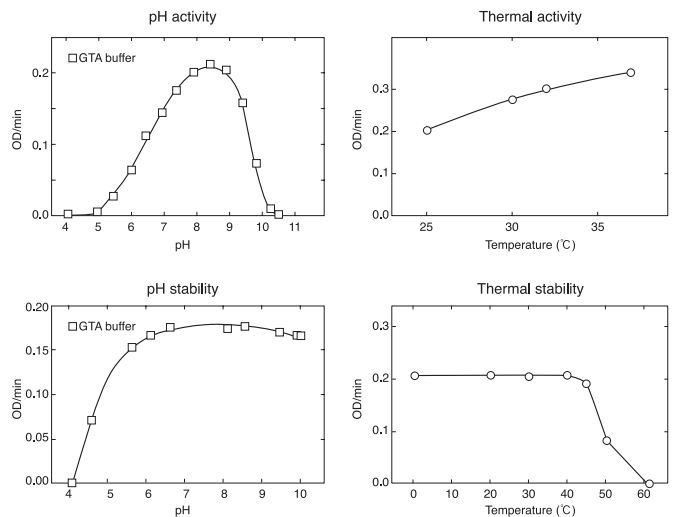
D = Enzyme dilution factor

6.2 = mM extinction coefficient of NADPH
(L · mmol⁻¹ · cm⁻¹)

d = Light path length (1 cm)

v = Volume of enzyme sample (0.02 mL)

Reference Data



Preparation and storage

Product Code : G-6-PDH-52

Ammonium sulfate suspension ·····1°C ~ 10°C

IU per 1 ml suspension is approximately 1,000 units.

Product Code : G-6-PDH-53

Lyophilized powder (contains no ammonium sulfate)

·····below -20°C

IU per 1 mg powder is approximately 250 units.

OYC No./Package

Ammonium sulfate suspension

OYC No.	Package
46528052	250 units
46529052	1,000 units
46530052	5,000 units
46529902	Bulk

Lyophilized

OYC No.	Package
46528053	250 units
46529053	1,000 units
46530053	5,000 units
46529903	Bulk

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

