

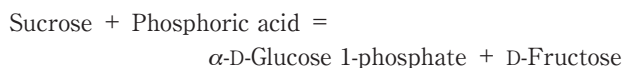
SP

Sucrose phosphorylase

Sucrose : orthophosphate α -D-glucosyltransferase (EC 2.4.1.7)

from *Leuconostoc mesenteroides*

Reaction Equation



Specification

Specific Activity

IU/mg protein

Contaminants

Lactate dehydrogenase

Specifications

>100 units

<0.1%

Assay Procedure

I. Spectrophotometric Method

Wavelength ; 340 nm, Light path length ; 1 cm,
Temperature ; 30°C

Pipette the following reagents into a cuvette

2.15 mL	Potassium phosphate buffer (0.1 mol/L, pH 6.6)
0.60 mL	Sucrose (1 mol/L)
0.15 mL	MgCl ₂ (0.1 mol/L)
0.075 mL	NADP ⁺ (20 mmol/L)
0.015 mL	G-1, 6-DP (1 mmol/L)
0.01 mL	PGluM (RM) (500 IU/mL)
0.01 mL	G6PDH (1,000 IU/mL)
0.02 mL	SP (about 2 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 (3.03 mL)

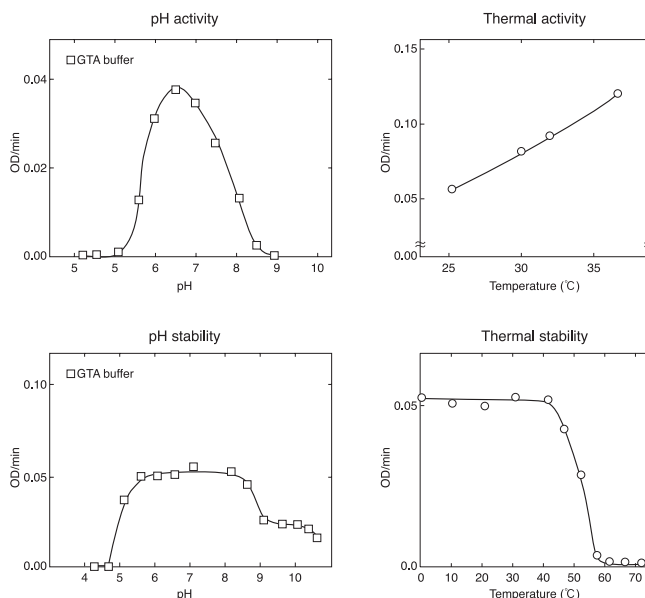
D = Enzyme dilution factor

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 : SP-93

Lyophilized powder (contains no ammonium sulfate)
.....below -20°C

IU per 1 mg powder is approximately 100 units.

OYC No./Package

OYC No.	Package
46691003	100 units
46693003	500 units
46694003	2,000 units
46690903	Bulk

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



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