

Glucose 6-phosphate dehydrogenase Recombinant Protein | G6PDH(Y) recombinant protein

Recombinant Glucose 6-phosphate dehydrogenase

CATALOG # AAA78984	HOST Yeast
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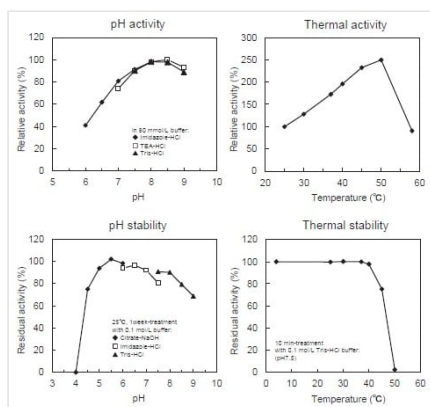
PRODUCT SYNONYMS

Glucose 6-phosphate dehydrogenase; Recombinant Glucose 6-phosphate dehydrogenase; EC 1.1.1.49; G6PDH(Y) recombinant protein

PRODUCT SPECIFICATIONS

Host	Yeast
Form/Format	Lyophilized powder
Reaction Equation	D-Glucose 6-phosphate + NADP+ <--> D-Glucono-1,5-lactone 6-phosphate + NADPH + H+
Specific Activity	U/mg protein: >250 units
Contaminants	Hexokinase <0.02%; Phosphoglucose Isomerase <0.01%; Phosphogluconate dehydrogenase <0.01%; Creatine Kinase <0.001%; Glutathione Reductase: <0.2%; Phosphoglucomutase <0.01%; Myokinase <0.01%; ATPase <0.001%
pH Stability	pH 5.5 - 6.5 (25C, 1 week)
Thermal Stability	<=40 C (pH 7.5, 10 min)
Optimum pH	8.0 - 8.5
Optimum Temp	50C
Km Value	1.0 x 10 ⁻⁴ mol/L (G6P); 5.7 x 10 ⁻⁵ mol/L (NADP+)
Preparation and Storage	Store below -20C

IMAGES



II Calculation

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

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

V = Total volume of reaction mixture (3.12 mL)

D = Enzyme dilution factor

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

d = Light path length (1 cm)

v = Volume of enzyme sample (0.02 mL)

Application Data

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I Spectrophotometric Method

Wavelength : 340 nm, Light path length : 1 cm

Final volume : 3.12 mL, 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	NADP ⁺ (10 mmol/L)
0.15 mL	G6P (10 mmol/L)
0.02 mL	rG6PDH (Y) (approx. 3 U/mL)

Application Data

NCBI AND UNIPROT INFORMATION

Molecular Weight

57kDA (SDS-PAGE)

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/glucose-6-phosphate-dehydrogenase-recombinant-protein-yeast/78984>