

We offer various packaging (protein concentration, activity, etc.) if necessary.

Data sheet

Enzyme	;	Glycerol-3-phosphate dehydrogenase A
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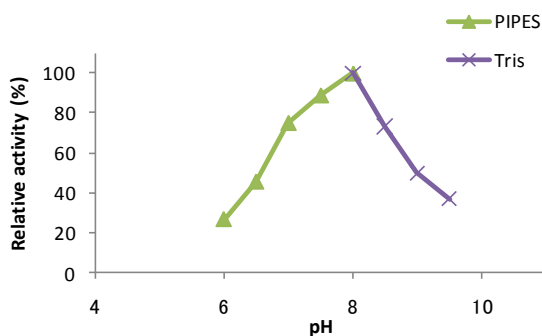
Code	;	GLP-35-01
Lot #	;	1-I101
Protein conc. ;		mg/ml
Volume	;	ml
Form	;	20 mM Tris-HCl (pH 8.0)
Storage	;	-20°C
Activity	;	U/ml (@50°C, pH 8.0)
Notes	;	For research use only.

● **Activity measurement :**

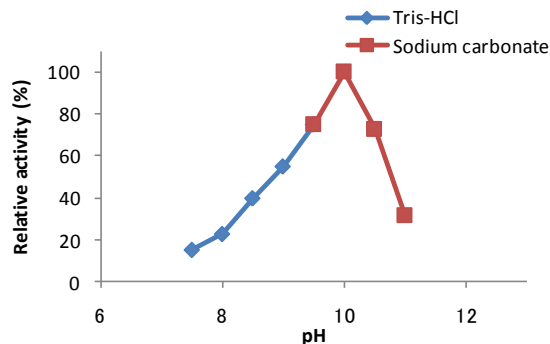
Reaction mix (50 mM PIPES-KOH (pH 8.0), 0.3 mM NADPH, 10 mM MgCl₂, 1 mM Dihydroxyacetone phosphate and appropriate amount of the enzyme) was incubated at 50 °C and A₃₄₀ was monitored. One unit is defined as the amount of the enzyme oxidizing 1 μmol of NADPH ($\epsilon_{340}=6.22 \text{ mM}^{-1} \text{ cm}^{-1}$) per 1 minute using Dihydroxyacetone phosphate as a substrate.

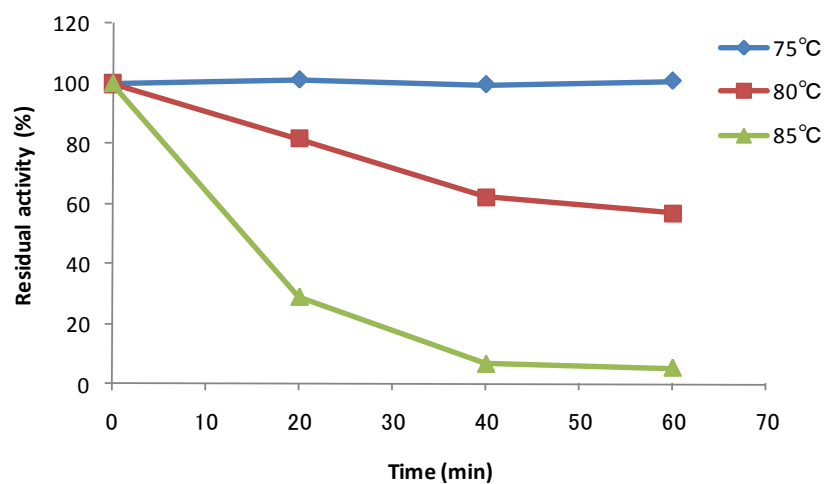
◆ Optimum pH

(a) Reduction of dihydroxyacetone phosphate



(b) Oxidation of glycerol-3-phosphate



◆ Thermostability◆ Kinetic parameters

(a) Reduction of dihydroxyacetone phosphate (@50°C, pH 8.0)

K_m for dihydroxyacetone phosphate = 0.21 mM

K_m for NADPH = 0.008 mM

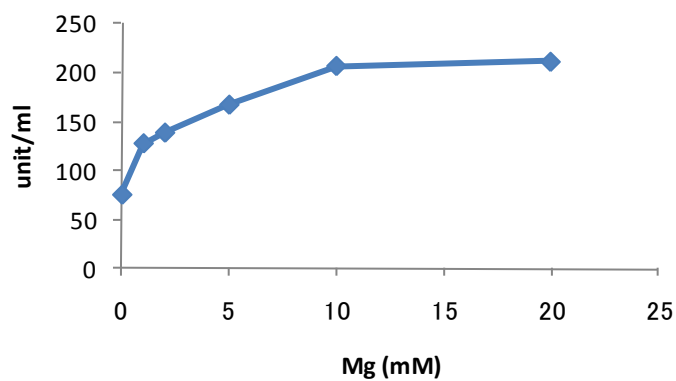
k_{cat} = 8.2 s⁻¹

(b) Oxidation of glycerol-3-phosphate (@50°C, pH 10.0)

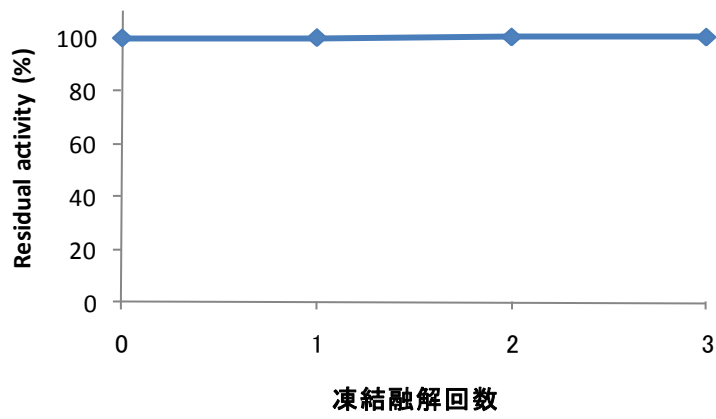
K_m for glycerol-3-phosphate = 0.37 mM

K_m for NADP = 0.014 mM

k_{cat} = 0.50 s⁻¹

◆ Effect of Mg Concentration

◆ Freeze-Thaw Test



Freeze-Thaw (cycle)