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

Data sheet

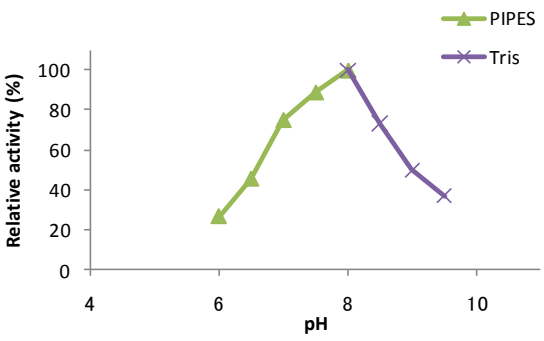
Enzyme	;	**Glycerol-3-phosphate dehydrogenase A**
Code	;	GLP-35-01
Lot #	;	1-I101
Protein conc.	;	mg/ml
Volume	;	ml
Form	;	20 mM Tris-HCl (pH 8.0)
Storage	;	-20°C
Activity	;	U/ml (@50℃, pH 8.0)
Notes	;	For research use only.

●Activity measurement：

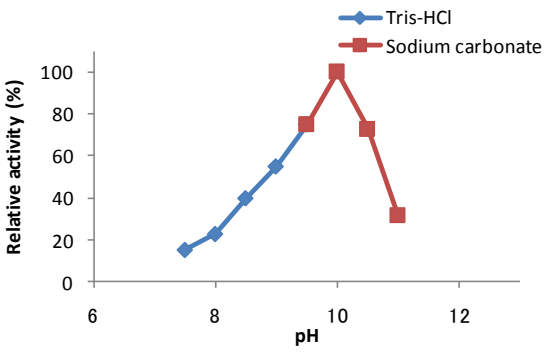
Reaction mix (50 mM PIPES-KOH (pH 8.0), 0.3 mM NADPH, 10 mM $MgCl_2$, 1 mM Dihydroxyacetone phosphate and appropriate amount of the enzyme) was incubated at 50 °C and A_{340} was monitored. One unit is defined as the amount of the enzyme oxidizing 1 μmol of NADPH (ε_{340}=6.22 mM^{-1} cm^{-1}) per 1 minute using Dihydroxyacetone phosphate as a substrate.

◆ Optimum pH

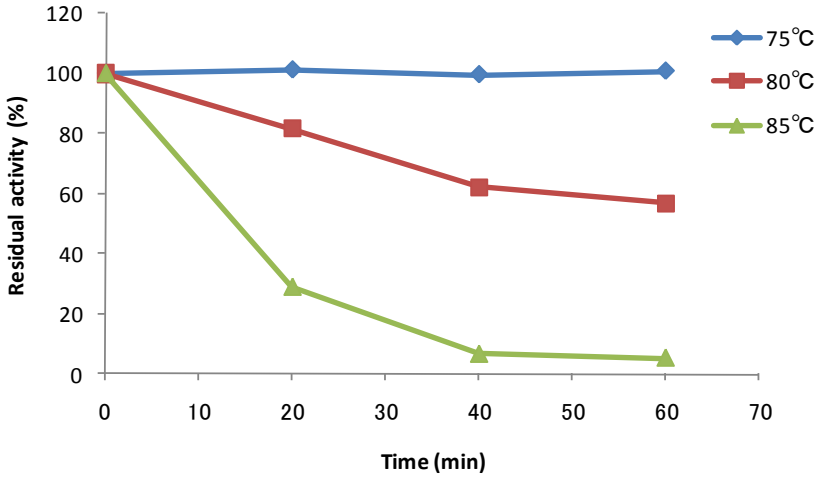
(a) Reduction of dihydroxyacetone phosphate



(b) Oxidation of glycerol-3-phosphate



◆ Thermostability



◆ Kinetic parameters

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

K_m for dihydroxyacetone phosphate = 0.21 mM

K_m for NADPH = 0.008 mM

k_{cat} = 8.2 s^{-1}

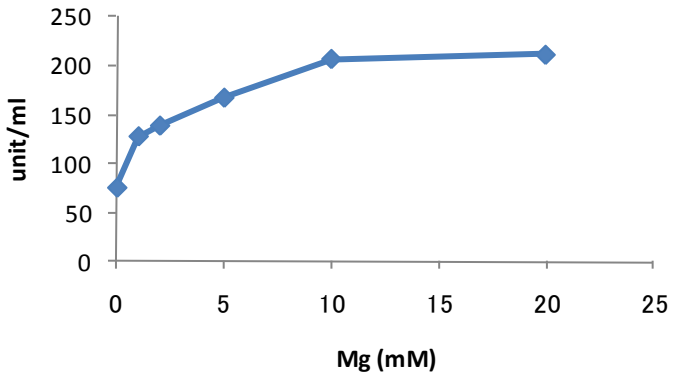
(b) Oxidation of glycerol-3-phosphate (@50℃, pH 10.0)

K_m for glycerol-3-phosphate = 0.37 mM

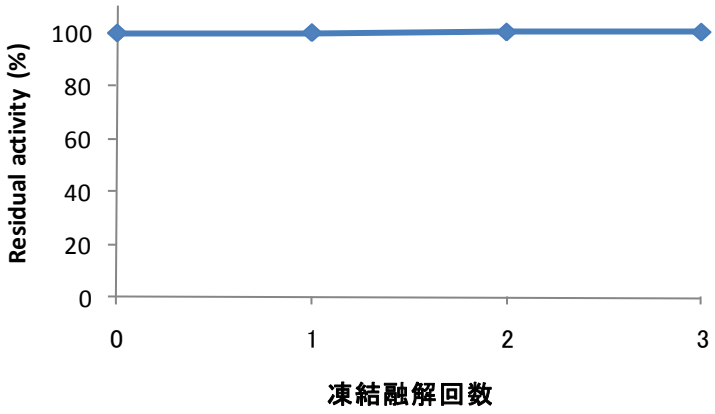
K_m for NADP = 0.014 mM

k_{cat} = 0.50 s^{-1}

◆ Effect of Mg Concentration



◆ Freeze-Thaw Test



Freeze-Thaw (cycle)