

M K

Myokinase Adenylate kinase

ATP : AMP phosphotransferase (EC 2.7.4.3)

from Yeast

Reaction Equation



Specification

Specific Activity

IU/mg protein

Contaminants

ATPase
Phosphoglycerate kinase

Specifications

>200 units

<0.01%

<0.1%

Assay Procedure

I. Spectrophotometric Method

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

Pipette the following reagents into a cuvette

2.65 mL	Triethanolamine-HCl-NaOH buffer (0.1 mol/L, pH 7.5)
0.20 mL	MgCl ₂ (0.15 mol/L), KCl (1.5 mol/L)
0.05 mL	ATP (60 mmol/L)
0.05 mL	AMP (60 mmol/L)
0.05 mL	PEP (60 mmol/L)
0.05 mL	NADH (10 mg/mL) dissolved in Tris (10 mmol/L)
0.015 mL	LDH (5,000 IU/mL)
0.015 mL	PK (1,000 IU/mL)
0.02 mL	MK (about 1.5 IU/mL)

II. Calculation

$$\frac{\Delta A/\text{min} \cdot V \cdot D}{6.3 \cdot d \cdot v} \times \frac{1}{2} = \text{IU/mL}$$

$\Delta A/\text{min}$ = The change in absorbance at 340 nm/minute
(revise the blank activation of MK and PK
(-))

V = Total volume of reaction mixture (3.10 mL)

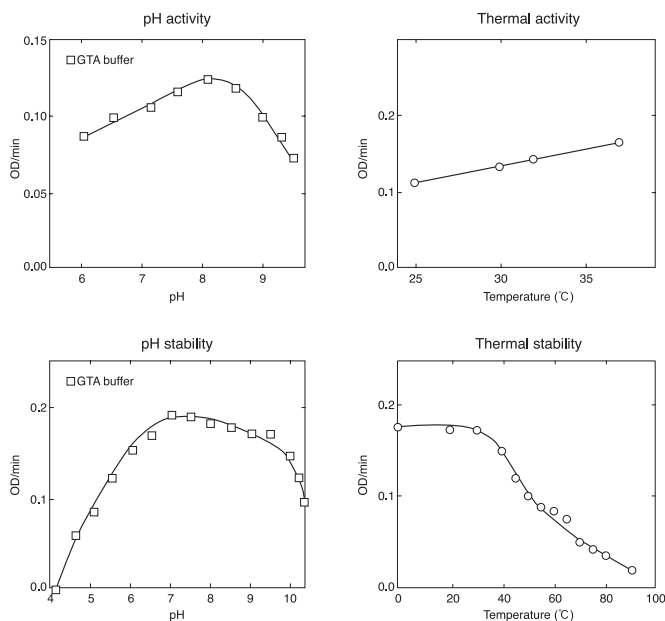
D = Enzyme dilution factor

6.3 = mM extinction coefficient of NADH
(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 : MK-05

50% Glycerol solution ····· -25°C ~ -15°C

IU per 1 ml solution is approximately 3,000 units.

OYC No./Package

OYC No.	Package
46620005	2,000 units
46621005	10,000 units
46622005	30,000 units
46619905	Bulk

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

