

rhCK-MM

Creatine kinase-MM, recombinant from human

ATP : Creatine N-phosphotransferase (EC 2.7.3.2)

Host cell : E. coli

Reaction Equation

ATP + Creatine = ADP + Creatine phosphate

Specification

Specific Activity

IU/mg protein

Contaminants

Myokinase

Purity

PAGE active staining analysis

SDS-PAGE analysis

Specifications

>500 units

<0.01%

Single band

Single band

Assay Procedure

I. Spectrophotometric Method

Wavelength ; 340 nm, Light path length ; 1 cm,
Temperature ; 37°C

Pipette the following reagents into a cuvette

- 2.40 mL Imidazole-acetic acid buffer
(12.5 mmol/L, pH 6.6, 30°C)
containing EDTA·2Na (2.5 mmol/L),
N-Acetyl-L-cystein (25 mmol/L),
NADP⁺ (2.5 mmol/L),
Glucose (25 mmol/L),
Mg-acetate (12.5 mmol/L),
ADP·K (2.5 mmol/L), HK (3,750 IU/L),
G-6-PDH (L.M.) (1,850 IU/L)
- 0.60 mL Imidazole-acetic acid (10 mmol/L, pH 6.6)
containing Creatine phosphate(150 mmol/L)
- 0.08 mL CK (about 1 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 (3.08 mL)

D = Enzyme dilution factor

6.2 = mM extinction coefficient of NADPH
(L·mol⁻¹·cm⁻¹)

d = Light path length (1 cm)

v = Sample volume (0.08 mL)

Preparation and storage

Product Code : rhCK-MM-05

Glycerol solution (pH 7.0 ± 0.5) -80°C

Protein concentration per 1 ml solution is ≥ 10 mg.

OYC No./Package

OYC No.	Package
47481004	100 units
47481904	Bulk

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

