



PYRUVATE KINASE (Rabbit Muscle) (Lot 141201)

E-PKRM

04/15

(EC 2.7.1.40) ATP:pyruvate 2-O-phosphotransferase
CAS: 9001-59-6

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 59,000)
- One major band on isoelectric focusing (pI ~ 7.7)

2. SPECIFIC ACTIVITY:

233 U/mg protein at pH 7.2 and 37°C.

One Unit of pyruvate kinase activity is defined as the amount of enzyme required to convert one μ mole of phosphoenolpyruvate to pyruvate per min in Tris.HCl buffer (100 mM) at pH 7.2 at 37°C.

Tris.HCl buffer, pH 7.2	100 mM
NADH	0.2 mM
Phosphoenolpyruvate	0.2 mM
KCl	10 mM
Magnesium sulphate	5 mM
D-LDH	136 U/mL

3. SPECIFICITY:

ATP + pyruvate = ADP + phosphoenolpyruvate

4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 7.2 and up to 70°C

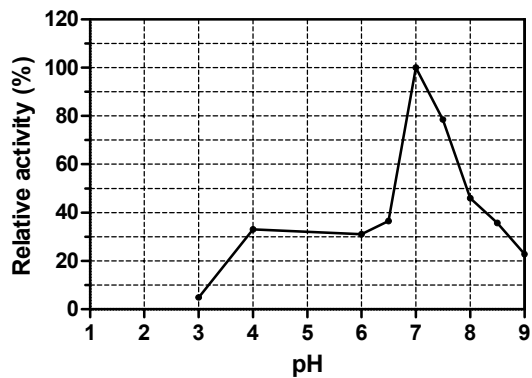
- pH Optima: 7.2
- pH Stability: 5.0-11.0 (> 75% control activity after 24 hours at 4°C)
- Temperature Optima: 60°C (10 min. reaction)
- Temperature Stability: up to 50°C

5. STORAGE CONDITIONS:

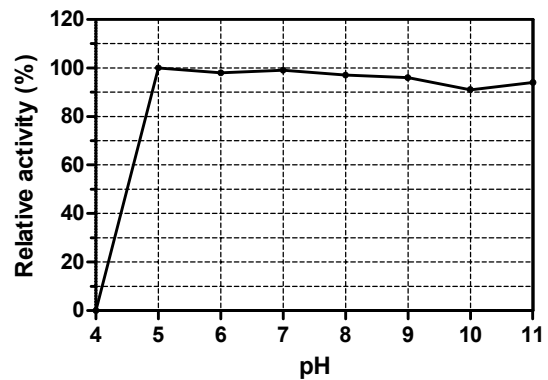
The enzyme is supplied as an ammonium sulphate suspension in 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in Tris. HCl buffer (100 mM), pH 7.2 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

6. EXPERIMENTAL DATA:

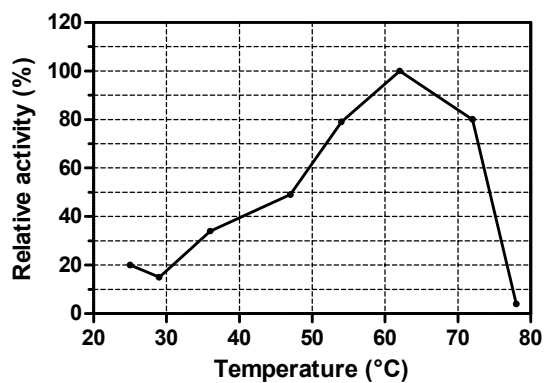
pH Optima



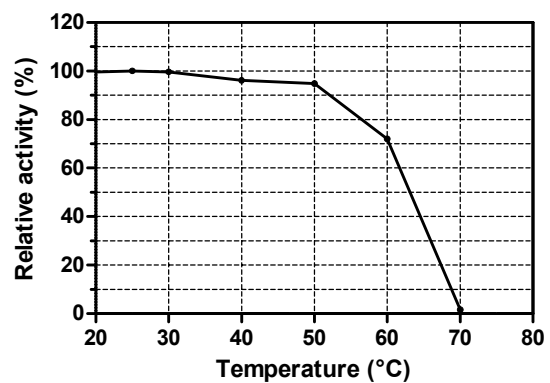
pH Stability



Thermal Optima



Thermal Stability



7. REFERENCES:

Mollering, H. (1985). Pyruvate Kinase. In *Methods of Enzymatic Analysis* (Bergmeyer, H. U., Ed.) VCH Publishers (UK) Ltd., Cambridge, UK., 3rd ed., **Vol. II**, pp. 303-304.