

Pyruvate kinase

Cat. No. PKLR-1544 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	
Species	Microorganism
Source	Microorganism
Description	Pyruvate kinase is an enzyme involved in glycolysis. It catalyzes the transfer of a phosphate group from phosphoenolpyruvate (PEP) to ADP, yielding one molecule of pyruvate and one molecule of ATP.
Predicted MolecularMass	68kDa
Isoelectric point	5.2
Michaelis constant	1.1mM (ADP); 2.2mM(PEP)
Optimum pH	7.5
Optimum temperature	80°C
pH Stability	5.0~10.0 (37°C, 20hr)
Thermal Stability	< 60°C (pH8.5, 20min)
Inhibitors	Ag ⁺ , Hg ²⁺

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Specific Activity	≥ 300U/mg protein
Unit definition	One unit will convert one micromole of phosphoenolpyruvate to pyruvate per min at pH 7.2 at 30°C.
Storage	-20°C
PreparationInstructions	The enzyme is reconstituted in 50mM Tris-HCl buffer, pH 8.5 for activity assay.
Background	Introduction The protein is a pyruvate kinase that catalyzes the transphosphorylation of phosphoenolpyruvate into pyruvate and ATP, which is the rate-limiting step of glycolysis. Defects in this enzyme, due to gene mutations or genetic variations, are the common cause of chronic hereditary nonspherocytic hemolytic anemia (CNSHA or HNSHA). Keywords Pyruvate kinase; EC: 2.7.1.40; CTHBP; Cytosolic thyroid hormone binding protein; MGC3932; OIP 3; Oip3; OPA interacting protein 3; Opa interactivity protein; PK 1; PK 2; PK 3; PK Muscle type; PK1; PK2; Pk3; PKL; PKLR; PKM 2; Pyruvate kinase 1; Pyruvate kinase 2/3; Pyruvate kinase isozyme R/L; Pyruvate kinase liver and RBC; Pyruvate kinase muscle isozyme; R type/L type pyruvate kinase; RPK; THBP 1; Thyroid hormone binding protein cytosolic