

Thermostable Archaeal Pyruvate Kinase, $\geq 80^{\circ}\text{C}$

Cat. No. CEGZ-6417

Lot. No. (See product label)

Introduction

Description A recombinant archaeal pyruvate kinase with thermal stability to at least 80°C for high-temperature nucleotide triphosphate regeneration.

Applications For research and in vitro phosphorylation of ribo- and deoxyribonucleoside diphosphates using phosphoenolpyruvate in nucleotide regeneration workflows.

Synonyms PK; PEPK; phosphoenolpyruvate kinase; phosphoenol transphosphorylase; fluorokinase; pyruvic kinase; pyruvate phosphotransferase; ATP:pyruvate 2-O-phosphotransferase

Product Information

Species Archaeal

Source Recombinant E. coli

Form Liquid

EC Number EC 2.7.1.40

CAS No. 9001-59-6

Molecular Weight 51.9 kDa

Thermal stability Thermostable up to at least 80°C

Specificity Ribo- and deoxyribonucleoside diphosphates; phosphoenolpyruvate-dependent phosphate transfer.

Substrates ADP; phosphoenolpyruvate; (d)NDPs

Reaction $\text{ATP} + \text{pyruvate} = \text{ADP} + \text{phosphoenolpyruvate}$

Notes Recombinant protein produced in E. coli and purified by heat treatment and His6-tag affinity chromatography. Optimal reaction time and enzyme concentration may vary depending on the substrate.

Protocol 70 mM Tris-HCl, pH 7.6 (at 37°C) 10 mM MgCl_2 5 mM ADP 6 mM phosphoenolpyruvate 0.04 g/L enzyme 37°C , 2 h

Usage Research and in vitro use only.

Storage and Shipping Information

Storage -20°C