Creative Enzymes®

Thermostable Archaeal Pyruvate Kinase, ≥80°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	ATP + pyruvate = ADP + 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 MgCl2 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